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BLUE JAY

December 1981

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HIBERNATING BUMBLE BEES AT THE PAS, MANITOBA

WALTER KRIVDA, Box 864, The Pas, Manitoba. R9A 1K8

It is well known that bumble bees ibernate. The fertilized queens in the all of the year find suitable refuge for he winter. Here they freeze almost solid. n this condition they pass the winter. In he spring as the ambient temperature ses, they revive, leave their hiding laces and start to feed on the pollen nd nectar on the first pussy willow lossoms. This is likely their first food. oon after, they start new broods. This art of the life history is rather well nown.

It is somewhat of a puzzle however, ust where bumble bees pass the winter. he nests of mice are often suggested s a likely place; old sawdust piles are lso listed as likely spots. Hibernating irectly in the ground is not mentioned. n northern areas and beyond tree line, e soil is the only available location. ere in the wilder habitats, humocky, eaty soil is likely favoured.

It is not known evidently that solitary umble bees overwinter in gardens in e ground.

Over the past 30 years and more, I ave noted that bumble bees are found potato hills in September when the otatoes are dug. I have collected such pecimens and preserved them in my sect collections.

When the hill is disturbed as the otatoes are dug, the bees often fall on eir backs. In bright sunny weather, ey will buzz loudly, soon after being ug out of the loose, friable soil. Some an even fly off. In dull, cold autumn eather they stay torpid and dormant nd can be carried in the hand.

This year, on 10 September, I had the eat good fortune to observe a queen umblebee flying among potato hills in e garden looking for a likely hibernating location. After a few minutes of explorations, she landed, walked up a potato hill and entered the top of the hill just where the potato vines emerged from the ground. She began pushing into the soft soil head first and using the first pair of legs to help her along. In less than a minute she was out of sight. The soil continued to heave briefly as she dug. Soon this stopped as she penetrated more deeply. The following day I dug her out. She had penetrated three inches into the soil. Over the next eight days as 700 hills of potatoes were dug, seven queen bees were found. Three have been preserved as specimens and labelled as being found in potato hills. The other four were set free. All were of one species the Common Black and Yellow Bumblebee. Hibernation in soil is hereby established. This may help explain why other, black species of *Bombus* can survive on the Islands of the high arctic where the only place to hibernate is the soil. This is the ecological winter niche of bumblebees.

It should be noted that 1% of the potato hills had hibernating bees. A farmer's field of thousands of hills can accommodate the future mothers of entire bumblebee populations.

It is early enough in the year for the disturbed queens to find new winter quarters after having been driven out by potato diggers. A late cold and wet season may kill many exposed queens. This needs more observation.

The habit of bumblebee queens attempting to hibernate in potato hills may adversely affect bumblebee populations in areas devoted to potato farming. This may have an indirect effect on seed set of wild plants locally and also on plants such as field peas, needing bee pollination.

SASKATCHEWAN BIRD SPECIES — HYPOTHETICAL AND REJECTED

C. STUART HOUSTON, MARY I. HOUSTON, 863 University Drive, Saskatoon
Saskatchewan S7N 0J8, and J. BERNARD GOLLOP, Canadian Wildlife Service
115 Perimeter Road, Saskatoon, Saskatchewan. S7N 0X4

At the beginning of 1981 there were 339 fully accepted species of birds on the Saskatchewan list. In addition, there were 39 "hypothetical" species, 29 of these being additions since the fifth *Field Check-list of Saskatchewan Birds* in 1969. The following list of the hypothetical species is, we believe, complete to 1 January 1981, using the same cutoff date as we used in the last issue for fully accepted species (*Blue Jay* 39:145-154, September 1981).

The word "hypothetical" in its conventional ornithological usage is quite specific — it means a species claimed to have been seen but for which there is no material evidence, such as a specimen, a recognizable photograph or an unmistakable sound recording. A "hypothetical" species is one that can neither be fully accepted or fully rejected on the evidence available. The following list contains records of varying degrees of validity and credibility, each of which must be judged individually on its merits, bearing in mind the circumstances and the reputation of the observer(s). Some are highly probable for one reason or another, but even if we were to identify a record that we thought had only a 10% chance of being right, this would be rather meaningless. It is something like quoting a 10% mortality rate to a patient, this figure being of little solace when the patient dies. Just as the patient either lives or dies, so is the bird identification either 100% right or 100% wrong. It is just that we do not know for sure which of these possibilities is true, for there is no proof. Nevertheless, the easier a species is to identify, the bette the conditions, the better the observe the more likely it is to be correct. An when more observers in more places a more times see the same species, the the probability becomes very high indeed, even though it is entirely possibl for many observers to make the sam error at different times.

A "hypothetical" record is not to b confused with a "rejected" recor Records for five "rejected" species an another that we rejected before it g into print, are given at the end of the a ticle. Any "nearly acceptable" catego is still arbitrary, but one could defen five well documented sightings b different observers as a minimum for

A panel sitting in judgment on suc records might assess probabilities a b more accurately than any one individu but, as with an observer, mistakes woul be made, and such errors could receiv unwarranted credibility. Some of th records judged as valid by such a committee would be in error; some of th records rejected by them would, in fac have been correct. We admit that erro have been made even with materi evidence, but at least the specimen, th photograph or the sound tape a available for reassessment and correction.

We leave the reader to place his her own valuation on each of th following, but we reiterate that not one the following records is as yet fu acceptable.

Because the list of references would take more space than the list itself, and because this is more of an index than a review article, we have forsaken tradition and have placed the reference immediately after each sighting or group of sightings. Single birds are involved and all reports are sight records unless otherwise specified. New refers to a species added since the fifth check-list.

1. YELLOW-CROWNED NIGHT HERON. NEW. An adult 20 May 1978 at Lebret Marsh by Frank H. Brazier, E. Manley Callin and David Chaskavich (Blue Jay 36:145-146, 1978).

2. GLOSSY IBIS. NEW. Based on detailed field notes by P.M. Browne, on 14 August 1979 about 5 mi north of Courval, noting the differentiating features between the White-faced Ibis and this species. A photograph clearly demonstrates this to be an Ibis, but the photo does not reveal the diagnostic markings (Kreba, Blue Jay, this issue).

3. EUROPEAN WIGEON. NEW. Four sightings: a pair on 7 May 1971 at Cumberland House by D.T. Little (Blue Jay 29:134, 1971); a male 6, 7 and 8 June 1975 at a farm dugout north of Moose Jaw by V.J. Lieffers and D.R.M. Hatch (Qu'Appelle Waterfowl Resource Inventory, Wildlife Tech. Rep. 77-20, 1977, p. 47); an adult male through spotting scope at 100 m on 27 April 1977 at the east end of Cypress Lake by F.M. Brigham and J.D. Lafontaine (Blue Jay 35:170, 1977); 23 May 1977 at Moose Jaw by M.A. Ritchie and R.O. Hilling (Serr, Am. Birds 31:1014, 1977).

4. COMMON POCHARD. NEW. A pair on 11 June 1977 at Stonybeach Lake, 8 mi north of Belle Plaine, by Frank Brazier and Elmer Fox (Blue Jay 36:216-217, 1978).

5. BARROW'S GOLDENEYE. Four records, two before the fifth Check-list in 1969: an adult male 6 April 1956 at Morse by John M. Nelson (Nero, Blue Jay 23:127, 1965) and an adult male shot but not verified at Pasqua Lake on 12 October 1964 by Jamie Young (Nero, Blue Jay 23:127, 1965); a male on 9 November 1975 north of Semans by Wayne C. Harris (Serr, Am. Birds 30:87, 1976); a male through a spotting scope at Eastend on 5 and 6 April 1980 by Jack and Janet Wilkinson (Gollop, Am. Birds 34:788, 1980).

6. SWALLOW-TAILED KITE. All but one of the six sightings were before the first Check-list in 1947: in the 1880's at Fort Qu'Appelle by R.H. Hunter; on 24 May 1890 at Fort Qu'Appelle by George Lang; on 9 June 1898 at Katepwa by George Lang, and near Regina on 20 June 1906 by George Lang (Callin, Birds of the Qu'Appelle 1857-1979, 1980, p. 60); an adult in April 1921, 3.5 mi northwest of Tisdale by Stanley J. Street and Maurice G. Street (Blue Jay 29:224-225, 1971); in spring of 1955 in Regina by E.L. Fox (Belcher, Birds of Regina, 1980, p. 49).

7. RED-SHOULDERED HAWK. NEW. 17 August 1980 at Wolseley by J. Donald Hayward (Harris, Am. Birds 35:195, 1981).

8. MOUNTAIN PLOVER. NEW. Elliott Coues in his survey immediately south of the 49th parallel in 1874, reported: "Its centre of abundance in the region was the vicinity of Frenchman's River, where many specimens, both adult and young, together with a set of three eggs, were secured during the first and second weeks in July." (Coues, Bull U.S. Geol. & Geog. Survey Terr., 4: 1878, p. 634). First Canadian sighting was on 5 June 1939 near Bracken by J.D. Soper (Can. Field-Nat. 55:137, 1941). Eight on 22 September 1977 near Val Marie by Bob Peart and J.G. Woods (Blue Jay 38:41, 1980). An undated sighting by John Shadick about 1959, south of Govenlock has not been published.

9. AMERICAN WOODCOCK. Was on first list and then withdrawn. There are unusually dubious sightings for Woodcock: Portage on the Fond du Lac River by J.B. Tyrrell on 8 August 1892, quoted by Nero (Birds of the Lake Athabasca region, 1963, p. 72), vague reports of possible sightings at Oxbow and Moose Mountain by Mitchell (Birds of Saskatchewan, Canadian Field-Nat. 38:106, 1924), and a sighting in the Qu'Appelle east of Craven by Sylvia Harrison and Pearl Guest in 1960 (Blue Jay 16:160, 1960). Bob Kreba heard one or two on the shore of Little Kenosee Lake, Moose Mt. Provincial Park, on 5 and 6 May 1978 (pers. comm.)

10. ESKIMO CURLEW. First listed in fifth check-list, Godfrey (Birds of Canada, 1966, p. 145) says "it undoubtedly occurred", and Gollop (mss.) concurs. An unnamed companion of Walter Raine gave a tantalizing record of "nearly a hundred" birds in May 1891 (Houston, Blue Jay 39:172, 1981). Although four specimens were collected during the first Franklin expedition, 1819-1821,

all were outside of Saskatchewan. However, Richardson in his reasonably reliable table, giving sight records for Carlton and Cumberland during the two Franklin expectition, says "Of passage, spring." (Fauna Boreali-Americana, II, 1831, pp. xxviii-xxix.).

11. SHARP-TAILED SANDPIPER. NEW. Two on 24 May 1980 at Regina by Robert Kreba and Tom Riffel, studied for 25 minutes at 30 feet with a 60x scope. (Gollop, Am. Birds 34:788, 1980; date wrong).

12. WESTERN SANDPIPER. NEW. Five sightings: More than once in spring 1968 at Regina by Bill Eddie (Belcher, Birds of Regina, 1980, p. 68); on 25 July 1974 at Perdue by A.R. & Karen Smith; (Renaud and Renaud, Birds of the Rosetown-Biggar district, Saskatchewan, 1975, p. 66-67); four at Catherwood Lake near Perdue within 35 ft on 30 May 1977 by G.J. and R.A. Wapple and R. Chulach (Blue Jay 35:158, 1977); two near Biggar on 15 May 1978 (Belcher, Birds of Regina, 1980, p. 68); and on 18 May 1980 at Moose Jaw by J. Thomson (Gollop, Am. Birds, 34:788, 1980).

13. BLACK-NECKED STILT. Was on third and fourth lists, but stricken from fifth. The supposed nest record for 3 June 1894 at Qu'Appelle is not an acceptable record (Godfrey, Auk 86:562-563, 1969). There are three sightings: three birds by Peter McLellan near Arcola on 20 May 1955 (Blue Jay 13(3):21-22), one by D. Renaud near Rosetown on 7 May 1971 (Renaud & Renaud, Birds of the Rosetown-Biggar district, 1975, p. 69-70) and five by Wayne Harris near Willowbunch on 6 August 1980 (Harris, Am. Birds, 35:195, 1981).

14. LONG-TAILED JAEGER. Was on fifth list. Five records: Kazan Lake on 13 June 1942 by T.E. Randall, harrying terns at close range (Blue Jay 20:67, 1962); Lake Athabasca on 1 July 1959 by W. Emblau and two on 25 July 1962 by R.W. Nero (Nero, Birds of the Lake Athabasca region, 1963, p. 80); north of Big Sandy Lake on the Bear River on 14 June 1972 by G. Anweiler, unpubl.; Condie Reservoir on 5 September 1977 by F.W. Lahrman (Belcher, 1980, p. 70).

15. ICELAND GULL. NEW, though on previous list when Thayer's Gull was considered a subspecies of Iceland Gull. Three sightings: two immatures 23-24 September 1977 at Saskatoon by Muriel and Geof Galloway and six other observers (Serr, Am. Birds 32:222, 1978); 23 December 1979 a Squaw Rapids by Wayne Harris (Blue Jay 38:20, 28-29, 1980), and 24-25 April 1980 a Katepwa Lake by Frank and Margie Brazier E.M. Callin and DRM Hatch (Callin, Birds o the Qu'Appelle, 1857-1979, 1980, p. 159).

16. LESSER BLACK-BACKED GULL NEW. Within 20 ft on 28 May 1977 nea Regina by Frank and Margie Brazier (Blue Jay 35:257-258, 1977).

17. LAUGHING GULL. NEW. Two flew over highway near Lake Chaplin on 9 July 1975 seen by D.B.O. and C.E. Savile (Can Field-Nat. 90:187, 1976).

Adult Thayer's Gull, Pond Inlet, N.W.T. *Wayne Renau*

18. IVORY GULL. NEW. Five at Nemieben Lake on 16 September 1976 by F.G. Bard (Lahrman, Blue Jay 35:49, 1977).

19. LEAST TERN. On fifth check-list. On 26 May 1957 by Frank Brazier and Elmer Fox near Regina (Blue Jay 18:162, 1960).

20. BAND-TAILED PIGEON. NEW. Three sightings: 6 August 1970 at Valley Centre near Rosetown by Wayne and Don Renaud (Blue Jay 28:166, 1970); in Saskatoon on 30 September 1970 by Shelagh Aldous (Shadick, Blue Jay 33:167, 1975), and 28-29 June 1980 near Mortlach by B. Forbes (Gollop, Am. Birds 34:905, 1980).

21. YELLOW-BILLED CUCKOO. NEW. One sighting on 8 June 1974 near Estevan by T.M. Beveridge (Houston, Am. Birds 28:917, 1974).

22. ANNA'S HUMMINGBIRD. NEW. One seen intermittently from 21 June to about 8 August 1971 in garden south of Raymore by Greta Harris (unpublished, pers. comm.).

23. BLACK-CHINNED HUMMINGBIRD. NEW. Seven feet away on 1 June 1970 at Regina by Jim and Shirley Jowsey (Blue Jay 28:120, 1970).

24. KISKADEE FLYCATCHER. NEW. One seen well on 19 May 1979 in Saskatoon by Pat O'Neil (Saskatoon Field Notes 29:9, 1979). This distinctive bird is not expected north of Texas and is not subject to irruptions, so an escape of a captive bird must be considered.

25. PINYON JAY. On first check-list. One sighting 16 September 1910 near Eastend by Laurence B. Potter (Can. Field-Nat. 57:70, 1943).

26. MOUNTAIN CHICKADEE. On fifth list. One present at feeder 30 November, 3 December, daily from 5 December 1966 through end of March 1967 and on 5 days in April to the 22nd at Skull Creek by S.A. Mann (Blue Jay 27:126, 1969).

27. BRIDLED TITMOUSE. NEW. Seen on 16 May 1978 at feeder from 10 feet at Kenosee by Ruth Carson, a keen Audubon member from Yelm, Washington, and a former college biology teacher. This was reported in Doug Gilroy's "Prairie Wildlife" column in Western Producer, 12 June 1980, and again on 19 February 1981. In a letter to C.S. Houston on 21 March 1981, Mrs. Carson says she saw the crest clearly and thought first of Tufted Titmouse which she had known in the east, but the distinct face and throat markings were those of a Bridled Titmouse, checked at the time in Robbins, Bruun and Zim's guide. The bird stayed for 3 days. It was also seen by the excited owners of the feeder, Walter and Ruth Dixon. This species should not be closer than Arizona and New Mexico, and an escapee must again be considered — but from where?

28. DIPPER. Since third list, but sightings date from 1917. Twice seen at Ravenscrag including two by Spencer Pearse 22 May 1917, a third sighting there by Bob Friel on 8 February 1941 (Houston, Bard and Nero, Blue Jay 16:65, 1958); Sealy, (Blue Jay 29:187, 1971); on 25 October 1963 on the main street of Maple Creek by R.V. Folker, Hugo Maliepaard and C. Reid (Blue Jay 22:5, 1964); on 6 May 1969 west of Eastend by Elizabeth Cruickshank and Ruth Baker; and on 9 May 1969 in Cypress Hills Park by Sharon Haggerty (Blue Jay 27:154, 1969).

29. CANYON WREN. NEW. One sang and was seen by R.D. Symons for 2 days in June 1941 in the Battle Creek valley of the Cypress Hills. (*Hours and the Birds*, 1967, p. 162).

30. BENDIRE'S THRASHER. NEW. 27 May 1972 west of Hanley by J.B. and M.F. Gollop (Blue Jay 33:167, 1975). This was the first Canadian sight record. The second was by D.R.M. Hatch and nine other observers at Grand Beach, Manitoba on 14 May 1974 (Houston and Shadick, Am. Birds 28:816, 1974).

31. WOOD THRUSH. NEW. There were seven sightings through the end of 1980: 24 May 1973 in Saskatoon by Pat O'Neil and nine others (Blue Jay 32:46, 1974); 5 October 1973 in Regina by E.L. Fox (Blue Jay 32:46, 1974); 27-28-29 April 1974 in Saskatoon by Pat O'Neil (Blue Jay 33:189, 1975); 27 May 1976 at Biggar by G.J. and R.D. Wapple, well studied at 15 feet for 20 minutes (Blue Jay 35:159, 1977); 21 July 1976 by V.B. Scott and 28 September 1976, by Pat O'Neil, both in Saskatoon (Saskatoon Field Notes 20:8, 1976); 21 September 1979 near Colgate by D.G. Bobbitt as close as 10 feet for 10 minutes (Blue Jay 39:112, 1981). (There has since been an authenticated photograph taken on 11 & 12 May, 1981 by Tom Riffel in Regina to place this species on the full Saskatchewan list.)

Cypress Hills. *J. B. Gollo*

32. WESTERN BLUEBIRD. NEW. An adult male (with a female bluebird) on 1 September 1969 5 mi south of Saskatoon by J.B. Gollop. Studied at distance of 40 yards with 7x50 binoculars for more than a minute; some red on back as well as on its breast. (Saskatoon Bird Review 4:119, 1969).

33. PROTHONOTARY WARBLER. On fifth list. A male in spring plumage on 17 May 1969 in Regina by D.G. Bobbitt and H.B. Bedard (Blue Jay 27:149,155, 1969), and on 13 September 1978 an adult male singing at Regina, observed by Robert Kreba for several minutes and detailed notes made (Serr, Am. Birds 33:190, 1979).

34. WORM-EATING WARBLER. NEW. 19 May 1979 in Saskatoon by Muriel and Geoff Galloway, Jim Slimmon and Mary Houston; photo taken but not identifiable. (Blue Jay 37:209, 1979).

35. TOWNSEND'S WARBLER. NEW with BREEDING EVIDENCE. Two adults feeding two recently fledged young on 18 July 1979 at Fort Walsh by Wayne C. Harris (Blue Jay 38:92, 1980); also a male on 7 September 1975 in Saskatoon by S.J. & Mary Shadick (Blue Jay 34:102, 1976).

36. YELLOW-THROATED WARBLER. NEW. A pair on 16 May 1970 in Weyburn by Robert Kreba and Farrell Hall was well described (Blue Jay 29:130-131, 1971). An earlier report by Arthur Ward of banding this species in 1949 was probably a misidentification (Blue Jay 7(3):8,1949).

37. KENTUCKY WARBLER. NEW. On 25 September 1971 at Moose Jaw by John C. Horton and Dorothy Rhodes; studied at close range for 2 hours (Houston, Am. Birds 26:80 1972).

38. BLUE GROSBEAK. NEW. A pai sighted briefly on 26 May 1974 near Pik Lake by Jim and Thelma Pepper (Blue Ja 33:168, 1975).

39. HOUSE FINCH. NEW. Four reports: male on 15 October 1959 in Saskatoon b L.G. Saunders (Blue Jay 17:158, 1959) three males feeding on 26 April 1973 a Regina by Fred & Phyllis Bard (Blue Ja 32:48, 1974); a male within 6 feet on February 1976 in Saskatoon by Pat O'Ne (Blue Jay 34:127-128, 1976); one femal from 7 m on 29 April 1978 at Fort Qu'Appell by E.M. Callin and F.H. Brazier (Callin, Bird of the Qu'Appelle, 1857-1979, 1980, p. 144)

40. McKAY'S BUNTING. NEW. A brie view of an adult male on 2 October 1978 i Regina by F.H. Brazier (Blue Jay 38:36-38 1980).

REJECTED SPECIES

1. AMERICAN FLAMINGO. One wa photographed from the air, by R. Kent Brac while conducting an aerial waterfowl censu near Lake Lenore on 3 October 1972. It wa learned that two bright flamingos had es caped from the Roosevelt Park Zoo at Mino North Dakota, on 25 September 1972, an one of them had been sighted 30 m northwest of Minot on 27 September. Th Lenore bird was also bright pink and the bes assumption is that it was one of the escapee and thus not a wild bird. For this reason th record has been rejected. Reminiscences

Helena Janus Pike seeing flamingos near Waseca about 1937 and 1940 carry all the hazards of reminiscences by members of the public. (All three records were discussed, with 1972 photo, in Blue Jay 31:167, 1973).

2. BLACK VULTURE. On first list, then withdrawn. L.B. Potter listed it as follows: "Sight record, E.H.M. Knowles, Regina, September 19, 1937" (Blue Jay 1:25, 1943). Subsequently Knowles told Houston that the bird, north of Regina, had a black head, but seemed the approximate size of a Turkey Vulture. He had not appreciated that a young Turkey Vulture may have a black head. Rejected.

3. HAMMOND'S FLYCATCHER. In 1980, Fred G. Bard kindly gave Houston a list of specimens collected by the late Charles F. Holmes of Cloverley Farm, 7 miles south of Dollard, Saskatchewan. This list included specimen No. 72, a male Hammond's Flycatcher collected at the farm on 10 October 1933. Correspondence was initiated with his son Paul M. Holmes of Salmon Arm, B.C. and then with Philip H.R. Stepney of the Provincial Museum of Alberta, the insitution which had recently acquired Holmes' collection. The specimen label had a different date, 19 October 1933, and had first been identified by Holmes as a Western Wood Pewee. This identification was later changed by Holmes to "*Empidonax hammondii*?". The wing chord of 78.4 mm seemed a little large for a Hammond's Flycatcher but too small for a Western Wood Pewee. The specimen was then sent by Stepney to Henri Ouellet of the National Museum of Canada, who identified it as an immature Western Wood Pewee. Rejected.

4. WESTERN FLYCATCHER. The reported banding of this *Empidonax* by Arthur Ward near Burnham in 1949 is probably in error (Blue Jay 7(3):8, 1949). Rejected.

5. PAINTED REDSTART. On 1 September 1972, there was excitement at 1125 Elliott Street, Saskatoon. Pat O'Neil called the Houstons over to see a redstart with a bright orange-red breast. When facing the observers, it looked exactly like the Painted Redstart illustrated in Peterson's *Field Guide to the Western Birds*, opposite p. 262. This would have been considered diagnostic, except that the bird then turned, to show orange not white in its wings and the orange tail flashes of an American Redstart. The regular field guides and texts were of no help with this conundrum, but the explanation was found in Robert Ridgway, *The Birds of North and Middle America* (Bull. USNM No. 50, Part II, 1902, p. 724) where he quoted Mearns (Bull. Nuttall Orn. Club 2:70, 1877) regarding the breast colour in the American Redstart: "Frequently the white portions are tinged with orange-red, especially on sides and flanks; very rarely the white is entirely replaced by orange-red". A careful look and reference to a specialized book thus corrected the initial misidentification.

6. FIELD SPARROW. The late Arthur Ward's claim to have banded a Field Sparrow at Burnham probably between 1949 and 1952 (Blue Jay 10(4):13, 1952) was in error, judging from Ward's description of the bird given verbally to Houston at a later date. Rejected.

Near Ravenscrag. *Fred W. Lahrman*

ADDITIONAL AMERICAN WOODCOCK NOTES FOR MANITOBA

ROBERT W. NERO, Manitoba Wildlife Branch, Box 14, 1495 St. James Street,
Winnipeg, Manitoba. R3H 0W9

In 1977 a fairly comprehensive report of the status of the American Woodcock in Manitoba was published (Nero, *Blue Jay* 35:240-56, 1977). The present note provides data on the first known nests for the province, other breeding records, and some additional sightings.

Previous breeding information included a record of an egg laid on top of snow (Piney, 20 April 1970), a brood of young 2 to 3 days old (Reaburn, 24 May 1975), a newly hatched chick (East Braintree, June 1976), and a brood several days old (Birds Hill, 12 May 1977).

It was inevitable that sooner or late someone would find an America Woodcock nest in Manitoba, but it is curious coincidence that the first tw nests should be found on the sam residential property by the same famil in two separate years. A woodcock nes with a full clutch of four eggs was foun on 14 May 1979, by George Monkma near his home 5 miles south and 1 mil east of Richer, about 25 miles south east of Winnipeg. The nest was studie by George's son Gary through incubation and hatching. My son Broo and Dennis Fast observed and photographed the incubating bird on 21 May

Site of first Manitoba woodcock nest. Note Jack Pine, mixed shrub and grass cover, and wat at lower left of photo.
Dennis Fa

I was surprised to find that the nest was within 60 feet of the Monkman house in a most unlikely looking habitat. The nest was in a fairly open spot surrounded by Red-osier Dogwood, young aspens, and close to some Jack Pines. A small pool of water was within a foot or so of the nest. The eggs hatched about 25 May; three chicks survived and were led away by the female. One chick apparently drowned in an adjacent shallow pool and was obtained from Gary Monkman for the collections of the Manitoba Museum of Man and Nature (MMMN).

A second nest with four eggs was found by Michael Monkman on 2 May 1981, about 50 feet from the first site. Once again I was surprised to see how open the nest site was; apart from a few shrubs and a nearby Jack Pine there was little cover. The eggs hatched on 5 May, but only two chicks survived. The remaining two, which appeared weak, were apparently abandoned and shortly died (specimens in MMMN).

Further breeding information is available. On 1 June 1978, about 1530 h, Doreen and Des Whellams found an adult woodcock with a chick crossing PTH 44 near Westhawk Lake, about 1 mile east of Hanson's Creek. The adult flushed off the pavement in front of their car, leaving the chick crouching in the middle of the road. The female bird followed Des along the road when he picked up the chick and carried it back to he car to show to his wife. The chick, which was well formed according to Whellmans, was presumably several days old. When released it scurried off after its parent.

Peter Taylor and Reto Zach discovered a half-grown young at their feet after an adult flushed in front of them and performed distraction display on 9 une 1978. This was on the edge of a leared area adjacent to mature aspen with heavy undergrowth at Pinawa. Harvey Lane and Peter Taylor flushed hree birds from this same spot on 14 June 1980. They presumed it was a family group.

While searching for a woodcock nest, Eugene F. Bossenmaier accidentally stepped on a flightless chick. This was on 23 June 1979, 2.5 miles south of Lewis (a hamlet on PTH 15; Sec. 19-11-10E), about 45 miles east of Winnipeg. Gene noted that the primaries were 20 mm out of the sheath, again suggesting a bird several days old. This is in an area with a fairly large number of breeding birds. (Specimen is in MMMN).

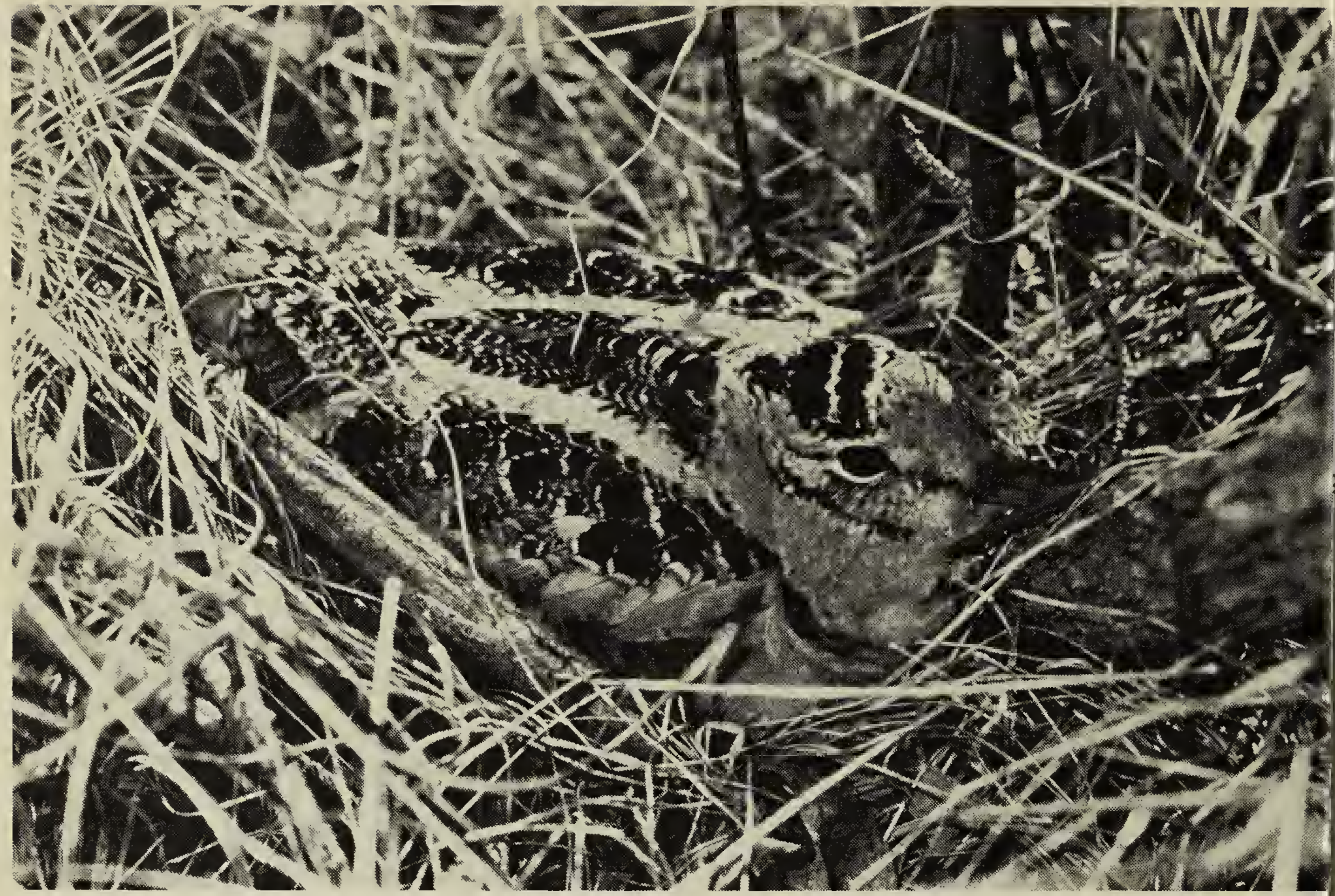
A family group of woodcock was found by Raymond Tuokko at Pinawa Bay, north of Lac du Bonnet, 1 July 1979. An adult, presumably a female, was found with at least two fledglings. The young birds were seen at close hand on the ground but they were able to fly. This was in a mixed-wood cover close to the Tuokko family residence.

Ken H. Doan reported finding a female with two chicks 4 miles west of Balmoral, some 18 miles north of Winnipeg. This was in a wet, mature aspen grove, 4 July 1979. The hen flushed and the chicks crouched, motionless.

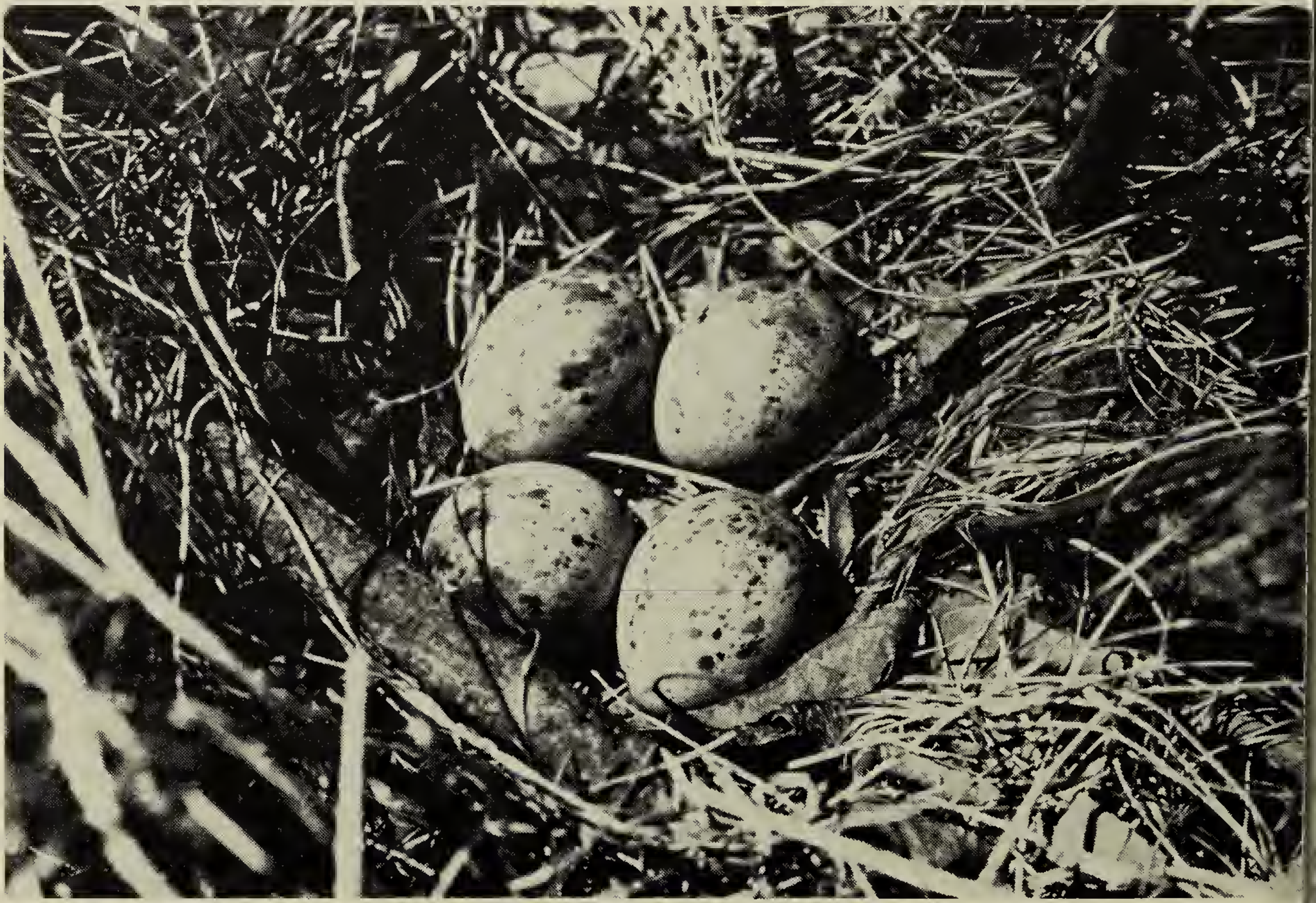
Craig Maxwell reported a female with five chicks almost full grown, about July in 1979, at Manigotogan, 80 miles northeast of Winnipeg. The female came out and stood nearby, then led the chicks across the road. This extends the known breeding range for this species to the north.

Finally, another family group was observed by Ian Ward and several other people on 24 May 1980, near Vivian just 35 miles east of Winnipeg on PTH 15, about 1 mile west of the junction with PR 302. The four young birds, which were almost full grown, followed both parents, slowly walking off the shoulder of the road and into cover. This is a breeding site which has been known for several years, but without previous observation of young.

Additional sightings shown in Table 1



American Woodcock on nest, 21 May 1979, Richer, Manitoba. Dennis Fas



Full clutch of woodcock eggs, Richer, Manitoba. Dennis Fas largely support previous observations, but the 1980 records from Riding Mountain National Park of an apparently single bird last seen 2 May are of special interest; only one previous record is known for that area (28 September 1933). The Ashern record, 90 miles northwest of Winnipeg (2 August 1978) further supports the assumption that woodcock occur in the Interlake region. Note that the 17 March 1981 record is apparently the earliest for the province; Tuokko's 28 October 1979 record is apparently the latest.

Table 1. ADDITIONAL RECENT RECORDS OF WOODCOCK IN MANITOBA.*

Year	*Date*	*Place*	*Observer(s)*
1976	October	Whiteshell P.P., near Dorothy & Eleanor Lakes (24!)	R. D. Sopuck
1976	October	Elma	D. & C. Elliott
1977	June	Whiteshell P.P., Falcon L. village	E. Schindler
1977	July	Whiteshell P.P., PTH 44 & Star Lake turnoff	D. Fitzjohn
1977	3 September	Whiteshell P.P., Camp Lake, west shore	D. & C. Elliott
1977	12 October	Whiteshell P.P., Betula Lake	M. Gillespie
1978	25 April	Whiteshell P.P., jct. PTH 44 & PR 307	D. Fitzjohn
1978	7 June	Whiteshell P.P., S of PR 301	E. Schindler
1978	July	Whiteshell P.P., Falcon L. village	E. Schindler
1978	3 July	Selkirk, N on River Road	J. McDonald
1978	19 July	Winnipeg, Transcona	R. Larche
1978	2 August	Ashern, 3 mi E on PR 325	L. Colpitts, et al.
1978	22 August	Milner Ridge	J. Ticknor
1978	26 August	Winnipeg, near Assiniboine Forest	W. H. Koonz, et al.
1978	20 September	Wampum, 0.75 mi W	P. Krahn
1978	"Fall"	Bissett, 5 mi W (rep. by American hunters)	C. Maxwell
1979	"early" May	Winnipeg, Assiniboine Forest (2)	R. W. Nero
1979	15 June	Jct. PTH 44 & PTH 11	L. Higgens
1979	22 June	Elma, 0.5 mi N	L. Higgens
1979	19 October	Richer area, Project 13, 1 mi S PTH 1	M. Comeau
1979	28 October	Lac du Bonnet, Pinawa Bay	R. Tuokko
1979	October	Manigotogan, 4 mi N	C. Maxwell
1980	10 April	Headingley, S of Assiniboine R.	P. Laufersweiler, J. Flannigan
1980	23 April	Riding Mountain Natl. Park, 3.5 mi E Wasagaming	C. Davar
1980	26 April	Riding Mountain Natl. Park	W. J. Walley
1980	2 May	Riding Mountain Natl. Park (last seen)	C. Davar
1981	17 March	Winnipeg, 326 Winchester	Mr. & Mrs. J. Jenkins
1981	28 March	Winnipeg, Charleswood Road, S of Wilkes	P. Caldwell
1981	28 March	Prawda, 2 mi N	H. W. R. Copland R. W. Nero
1981	28 March	Lac du Bonnet area; four birds seen on PR 214, a mile west of PTH 11	P. Taylor
1981	29 March	Glen Road, E Braintree	H. W. R. Copland, R. W. Nero
1981	3 April	Stonewall, 5 mi W	D. Soprovitch
1981	5 April	3 mi N of jct. No. 1 Hy. & Proj. 13 (3)	R. R. Taylor

Single sightings unless otherwise noted; breeding records not included.

FLY-CATCHING BY MALE RED-WINGED BLACKBIRDS

MARTIN K. McNICHOLL, 128 Silvergrove Hill N.W., Calgary, Alberta. T3B 4Z5

About 1815 on 2 July 1981, I was driving east on Alberta Highway 567 towards Irricana, when I saw a male Red-winged Blackbird leave its perch, fly up about 2 m at a steep angle and grab a medium-sized brown-coloured moth in its bill. A few minutes later I saw another male essentially duplicate the behaviour of the first. Both birds were singing as if on territory prior to their insect hawking, and both returned immediately to their perches, ate the prey and sang again. Both were in upland fields well away from water.

These observations were of particular interest to me for three reasons. First, although this species has long been known to use non-marsh habitat to breed, this behaviour seems to be increasing in recent years.[8 10] In both 1980 and 1981 I observed territorial males in many places in both Saskatchewan and Alberta in wooded ditches with no evident water or marsh vegetation in the immediate vicinity. Secondly, although I have often watched Redwings in all three prairie provinces for many years, I have not seen any catch insects on the wing previously. Finally, I became interested in insect-hawking by birds that normally procure food by other means several years ago, and have been particularly watchful for examples of this behaviour.[6 7]

Birds which normally or frequently catch food on the wing characteristically have short bills with wide gapes.[4] Red-winged Blackbirds, with long, pointed bills would thus not be expected to catch most food by aerial pursuit. In fact, this species is well adapted to gleaning food by methodically searching vegetation and by turning over small objects, such as stones.[9] That fly-catching behaviour is unusual in this species is suggested by the fact that I was unable to find it mentioned in several major publications on this blackbird, including Bent's account of the various races and a detailed comparison of foraging behaviour of various blackbirds by Orians.[2 10] In an earlier paper, Orians did mention that Redwings successfully catch insects, primarily emerging dragonflies, on the wing, but commented that they were not very adept at this method of procuring food.[9]

Fly-catching, especially of the short sally type usually practiced by flycatchers (Tyrannids) and some warblers (Parulids) is occasionally practiced by several species which usually obtain food by other means, including some other blackbirds and orioles (Icterids).[1 5 6 7 13] This is undoubtedly a response to readily available food, and probably takes place only when such food is obtained

Red-winged Blackbird. *Kathy Morck*

with little energy cost. Orians mentioned that dragonflies were obtained by this method in calm weather, and the fact that the dragonflies were emerging suggests that they were easier to catch than when in regular flight.[9] Similarly, my observations took place in calm weather, and the moths caught were slow-moving targets. The Red-winged Blackbird is known to be a "generalist," and has exhibited this in its opportunistic feeding on such foods as horseshoe crab eggs and gull eggs when these are readily available.[3, 8, 11, 12] Thus, it would be expected to catch insects on the wing when these are available and easily caught. Observers should be alert to this and other possible behavioural responses by Red-winged Blackbirds as they invade new habitats.

[1] BARTLETT, L. M. 1956. Observations on birds "hawking" insects. Auk 73:127-128.

[2] BENT, A. C. 1958. Life histories of North American blackbirds, orioles, tanagers and allies. U.S. Natl. Mus. Bull. 211 (Dover reprint, 1965).

[3] COOPER, D. M., H. HAYS, and C. PESSINO. 1970. Breeding of the Common and Roseate terns on Great Gull Island. Proc. Linn. Soc. New York 71:83-104.

[4] DORST, J. 1971. The life of birds. Vol. 1. Columbia Univ. Press, New York.

[5] MAILLIARD, J. 1919. Fly-catching birds. Condor 21: 212.

[6] McNICHOLL, M. K. 1967. Red-breasted Nuthatch "hawking" insects. Blue Jay 25:186.

[7] McNICHOLL, M. K. 1977. Observations of House Sparrows "hawking" insects. Calgary Field Nat. 8:170&188.

[8] MILLER, R. S. 1968. Conditions of competition between Redwings and Yellow-headed Blackbird. J. Anim. Ecol. 37:43-61.

[9] ORIANS, G. H. 1961. The ecology of blackbird (*Agelaius*) social systems. Ecol. Monog. 31:285-312.

[10] ORIANS, G. H. 1980. Some adaptations of marsh-nesting blackbirds. Monog. in Population Biol. 14.

[11] PESSINO, C. M. 1968. Red-winged Blackbird destroys eggs of Common and Roseate terns. Auk 85:513.

[12] REESE, J. G. 1973. Red-winged Blackbird feeding on horseshoe crab eggs. Wilson Bull. 85:483.

[13] STORER, T. I. 1919. The fly-catching habit among birds. Condor 21:125.

WOOD THRUSH NEAR CADILLAC, SASKATCHEWAN

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An individual Wood Thrush was observed at Driscol Lake, south of Cadillac, NE7-7-13-W3 20 May 1981 at 1420 hours. The bird was seen foraging with an American Robin on the lawn north of a farm house amongst rather dense shrubbery. The immediate impression was of a short tailed Brown Thrasher, but smaller than a Robin. The white breast with round black spots, a chestnut coloured back, nape and crown, with a slightly paler tail were noted. The bird had a dark eye, with a fairly distinct ring around it.

Silent, the bird gave a strong impression of a European Song Thrush (*Turdus philomelos*). Unlike this species however, the bird observed appeared more "chestnut", "cleaner" and generally more sharply coloured. No wing bars were noted and the birds legs were fleshy coloured.

I observed this thrush with Bushnell 10x50 binoculars for approximately 2-3 minutes at ranges from between 5 and 10 m. The bird appeared to be rather tame and eventually flew off into the nearby shelter belt, there remaining on the ground, or in the low strata of the undergrowth.

NOTE: There are eight other records for the province but this is the most southwesterly (Houston *et al*, 1981, *Blue Jay*, this issue).

UNUSUAL FEEDING HABIT OF THE COMMON CROW

VICTOR C. FRIESEN, P.O. Box 65, Rosthern, Saskatchewan. S0K 3R0

Houston has documented the increasing prevalence of the Common Crow nesting in urban settings such as Saskatoon.[4] [5] This propensity of crows to live on residential streets also extends to small towns — Rosthern, 61 km northeast of Saskatoon, being an example. Thus I have had more opportunity to observe (and listen to) these interesting birds.[3]

One late Sunday forenoon in May 1980, I observed a crow feeding on insects on a back lawn in Rosthern. Its peculiar manner of feeding, to my knowledge, has not been reported in the literature. This bird, as it stalked the short grass on this bright sunny day, held its wings partly out in a kind of "spread-eagle" pose and then pecked for insects in the shadow it was creating. This it continued to do for several minutes.

I was reminded of a cormorant's typical posture, and this in turn recalled for me a television program I had seen a few years ago in the CTV "Untamed World" series. It showed some herons in Africa, holding their wings "akimbo" in order to shade the water's surface and so facilitate their feeding on small fish.

Of course, there may have been some physiological reason for the crow to hold out its wings, but its other movements and its flight later gave no evidence of it. To me, it appeared as though the bird also had adopted this pose to aid its feeding — either it could see better itself in the glare of the sun, or else the insects would move more freely in the shaded grass and so expose themselves to view.

Crow. *Blake Maybank*

Bent reports that in May insects make up 21% of a crow's diet and that nesting crows need even larger quantities of insect food. My observation was during this month, and the crow may have been exercising what Bent calls its "extreme resourcefulness in securing a livelihood." He further states that pet crows (and we assume other crows which normally are not observed as closely) "are known to be very adept at learning to meet new and previously inexperienced conditions."[1]

I had hoped to see further instances of this unusual behaviour before I reported on it; however, none have been forthcoming from the various crows inhabiting Rosthern. I can only concur with Forbush and May, who say: "Each Crow is a character."[2]

[1]BENT, A. C. 1964 (reprint of 1946). Life histories of North American jays, crows, and titmice. Dover, New York, 495 pp.

[2]FORBUSH, E. H., and J. R. MAY. 1939. Natural history of the birds of eastern and central North America. Houghton Mifflin, Boston. 554 pp.

[3]FRIESEN, V. C. 1977. Do crows say caw? Blue Jay 35:35-37.

[4]HOUSTON, C. S. 1977. Changing patterns of Corvidae on the prairies. Blue Jay 35:149-156.

[5]HOUSTON, C. S. 1980. Fall crow roosts in residential Saskatoon. Blue Jay 38:42-43.

STATUS OF THE LEWIS' AND RED-BELLIED WOODPECKERS IN MANITOBA — 1929-1980

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LOUIS P. L'ARRIVEE, 3A - 616 Strathcona St., Winnipeg, Manitoba. R3G 3E8

The Red-bellied Woodpecker, a bird of southeastern North America, and the Lewis' Woodpecker, a bird of southwestern North America, are both irregular visitors to Manitoba. This paper reviews all records of these two species in Manitoba.

Red-bellied Woodpecker

The first record of the Red-bellied Woodpecker was the sighting of a male and a female in Kildonan Park, Winnipeg, on 29 May 1941.[3] Mr. Bert Skinner, who made the initial observation, observed both birds "boring a hole in a branch".[29] This record was confirmed by A. G. Lawrence and L. T. S. Norris-Elye who also saw the birds in the park.[3] Throughout the month of June, both birds were seen regularly, the male more often than the female.[3] This led to speculation that the female may have been incubating eggs, but the nest site was never found.[3]

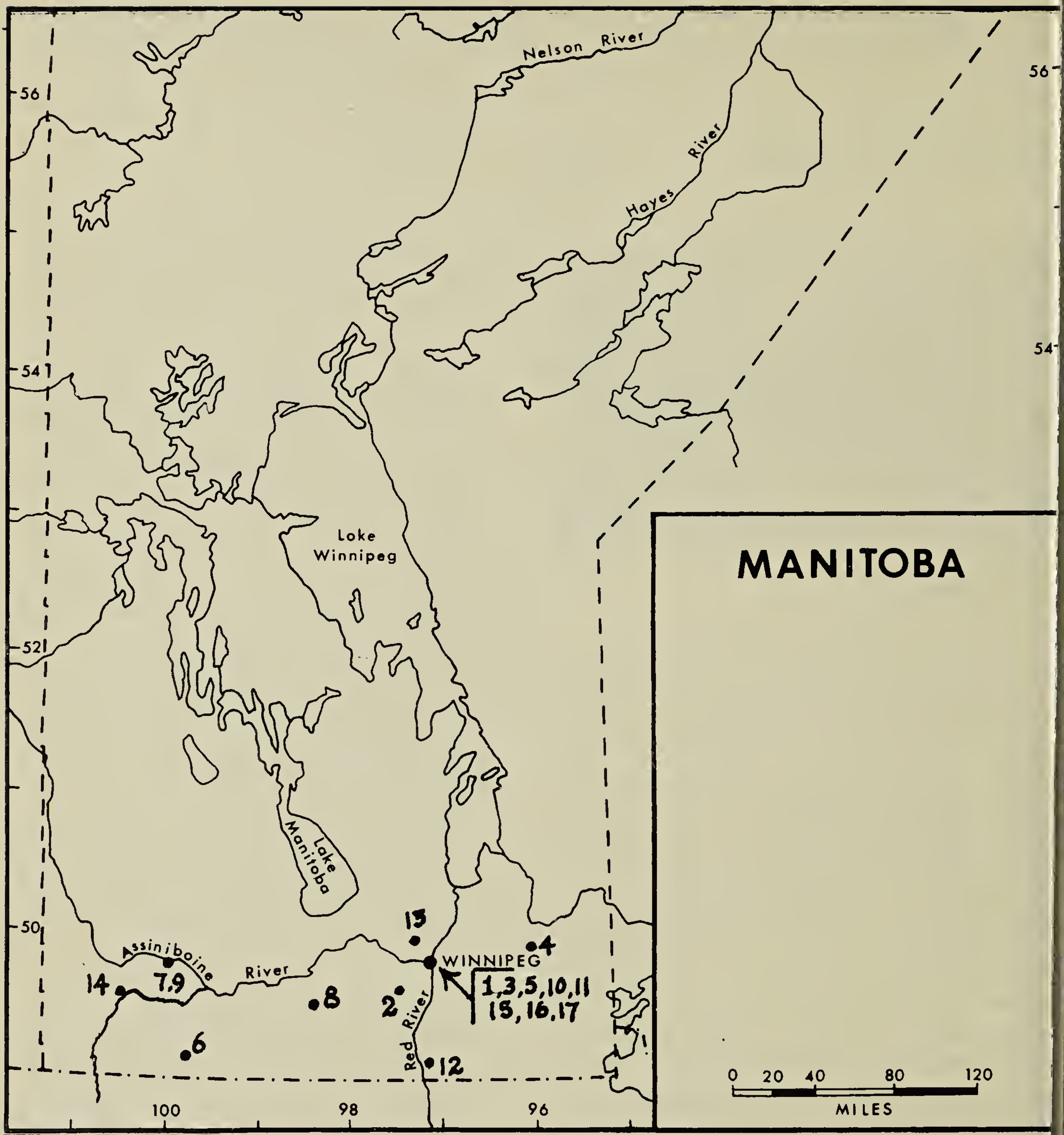
In December of that same year, Mrs. C. A. Moors discovered an immature male at her bird feeder in Sanford, 35 kilometres southwest of Winnipeg (see Map 1).[3] When L. T. S. Norris-Elye, A. H. Shortt, R. D. Harris, and B. W. Cartwright visited her on 24 January 1942, they noted that the bird was "just now assuming adult plumage."[3]

Strong evidence for a provincial breeding record came during the summer of 1942. Several naturalists and two employees of the park's staff, Horace Willis and Hector Macdonald, observed a brood of young in Kildonan Park.[36]

Lawrence wrote: "we found the 1941 adults quiet about their nesting territory, but the young out of the nest could definitely be labelled as noisy".[35] This statement has led to some confusion, however, his report in an earlier column that the 1941 pair was "believed to be nesting, although the cavity chosen eluded all search"[32] plus personal communication with persons who saw the 1941 and 1942 birds, indicates that young were only detected in 1942. Undoubtedly the reference to the "1941 adults" should have read 1942.[35]

This species was not reported again in Winnipeg until 29 June 1952 when V. B. Latta and Orland Gibson observed a female in Kildonan Park "amongst the big trees near their 1941 locale".[35] Only the day before, 28 June 1952, these same two birders made the surprising observation of a female Red-bellied Woodpecker with two fledged young at Whitemouth![35]

In January 1954, Mr. H. Cross observed a male daily at his feeder in Killarney.[36] On 1 January 1956, Dr. Ralph D. Bird photographed a female Red-bellied Woodpecker at the feeder of Mrs. Cliff Chapman, 16 km southeast of Brandon.[1] Harold Mossop observed an immature at Roseisle on 24 November 1956.[38] In January 1957, Dr. Ralph D. Bird, Jack Lane, and Walter Richardson observed one at the Indian Industrial School at Brandon.[40] Then from October 1963 to January 1964, a female was observed regularly at feeding stations in St. Vital and Fort Garry in Winnipeg and on 20 January a



Map 1. SIGHT RECORDS OF THE RED-BELLIED WOODPECKER IN MANITOBA.

1. Kildonan Park, Winnipeg. May 29 and month of June, 1941. Male and female.
2. Sanford. December 1941 to January 25, 1942. Immature male.
3. Kildonan Park, Winnipeg. Summer, 1942. Brood of young.
4. Whitemouth. June 28, 1952. Female with 2 fledged young.
5. Kildonan Park, Winnipeg. June 29, 1952. Adult female.
6. Killarney. January, 1954. Male.
7. Southeast of Brandon. January 1, 1956. Female.
8. Roseisle. November 24, 1956. One immature.
9. Brandon. January, 1957. One bird.
10. Winnipeg. October 1963 to January 1964. Female.
11. Winnipeg. October 30, 1965. Male.
12. Dominion City. December 20 to 28, 1967. One bird.
13. Stonewall. December 1970 to January 23, 1971. One immature male.
14. Souris. February 24, 1972. Male.
15. Winnipeg. October 16, 1975. One bird.
16. Winnipeg. December 19 to 22, 1975. One bird.
17. Winnipeg. Late October, 1977 to January 9, 1978. Immature male.

male appeared in the same area.[4] On 30 October 1965, a male was once again seen in Fort Garry.[4] One was seen at Dominion City by Jim Waddell from 20 to 28 December 1967[5] [39]

A female Red-bellied Woodpecker was observed at Stonewall on 2 January 1971, by Doug. Oakford and again on 16 & 17 January by Ken Gardner, who wrote:

> "At about 11:30 a.m. on Jan. 16 it showed up in my yard where it spent about three hours.
>
> During this time it made numerous trips to my feeding station; each time it would take a sunflower seed and fly with it to a nearby tree where the seed would be either eaten or hidden in the bark. The only other food item it tried was piece of raw deer fat attached to the trunk of one of the trees, this it also enjoyed.
>
> The rest of its time was spent foraging on the tree trunks and branches for natural food; of the five species of trees present in our yard it preferred Manitoba Maple, bur oak, and balsam poplar in that order. The eastern white cedars were ignored and the only time it landed on the black spruce was when it was approaching the feeder.
>
> We (my family and I) were able to watch it from our kitchen window at a distance of 50 feet, outside I was within 20 feet of it. The calls of "churr, churr" and "chad" were heard several times and all of its colors and markings were noted quite plainly with the aid of binoculars.
>
> This was definitely a female as the top of the head was ashy grey and not red as in the male. I stated last week that it was a male bird that Doug had seen, however, he informed me that he only thought it was a male as he was not able to get a clear look at the top of its head for positive identification. There is not much doubt that it is the same bird.
>
> She left about 2:30 p.m. and was not seen again until 8:15 the following morning, this time she spent an hour foraging among the trees and visiting the food tray after which she departed and was not seen again during the day."[4] [5]

It was later learned that this woodpecker had been visiting a food tray in the yard of Mr. and Mrs. L. Moore of Stonewall since before Christmas.[6] They found it dead on their grounds on 23 January.[6] The bird was believed to have died one week earlier when strong cold winds were blowing.[6] The specimen, a male, (No. 1.2-2972) is now in the collection of the Manitoba Museum of Man & Nature (H. W. R. Copland, pers. commun.)

On 24 February 1972 a male was observed in Victoria Park, Souris, by Barbara Robinson. She observed it for 10 minutes through binoculars and heard its loud "chur-chur-chur".[41]

On 16 October 1975 one appeared at the home of Mr. and Mrs. Clive Roots of Winnipeg.[10] Mr. and Mrs. Roy Low, also of Winnipeg, observed an adult male frequenting their feeding station from 19 to 22 December 1975.[10] Several others, including the senior author were associated with this observation.[10] Both the October and December reports are thought to have involved the same bird.[10]

In late October 1977, an immature male appeared at the feeder of Mr. and Mrs. John Doole in St. James, Winnipeg[12] and was seen frequently by the senior author. It was observed subsisting on sunflower seeds through to 9 January 1978.[12] On this date the temperature dropped to −29.4° C and the bird was thought to have succumbed to the cold weather.[12]

According to Godfrey in *The Birds of Canada*, the breeding range of this species includes southeastern Minnesota, extreme southern Ontario, western New York, and Delaware south to southern Texas and southern Florida.[8] Stewart in the *Breeding Birds of North Dakota* cites one confirmed breeding record (1939) and lists it as an accidental breeding species.[44]

The species has increased its range significantly in Minnesota, now being a "permanent resident from Stearns County south and east" and "regularly encountered" in fall, winter, and spring as far north as Crow Wing County and as far west as the Des Moines River drainage."[9] Therefore it is reasonable to expect that it will become of regular occurrence within Manitoba within the next few decades.

Including the initial 1941 sighting, there have been 17 sight records in Manitoba, 3 of which involve more than one bird. There are two probable nesting records (Kildonan Park, 1942 and Whitemouth, 1952). The sightings consisted of three in the 1940s, six in the 1950s, three in the 1960s, and five (four if the 1975 records are combined) in the 1970s. Based on terminology established in 1954 by the Committee from the Federation of New York State Bird Clubs, the Red-bellied Woodpecker is regarded as irregular (recorded less than once every year, but no less than once every five years on the average) in occurrence in Manitoba.

Lewis' Woodpecker

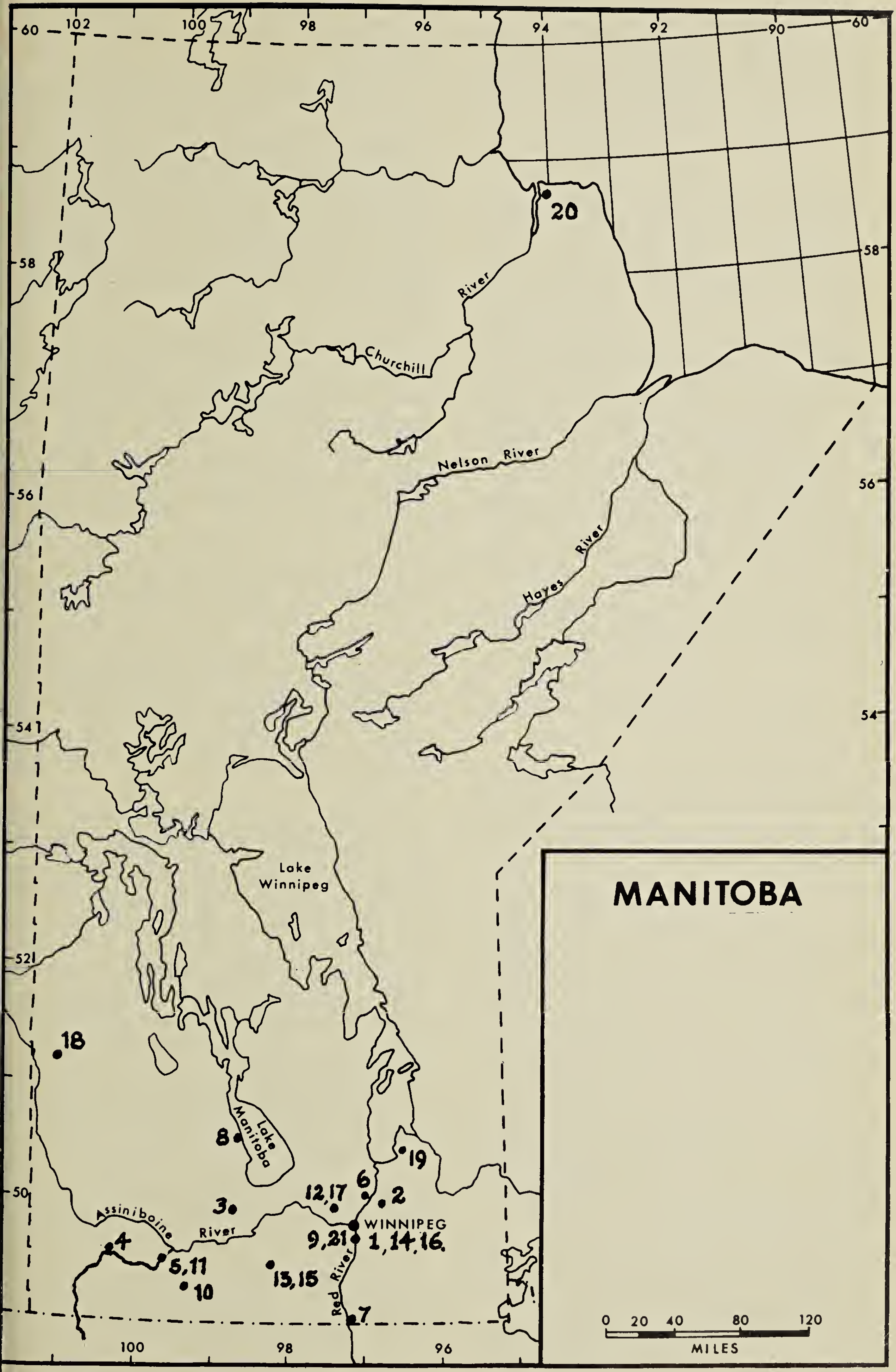
Harold Mossop on 24 October 1929, added the Lewis' Woodpecker to the provincial bird list when he discovered one in Winnipeg on a St. Vital golf course adjacent to the Winnipeg Canoe Club (see Map 2). Lawrence, quoting from Mr. Mossop's account of the original 20-minute observation, wrote "He was a big, active fellow and his actions were almost identical with those of the Red-headed Woodpecker. He would fly to the ground, then dart high into the air after small moths which were flying about abundantly. Once I noticed him alight crosswise on a perch like an ordinary bird, but I also saw him cling to a poplar in the usual woodpecker fashion. The bird took long flights, one being fully a quarter of a mile long, but always returned to the same place. I also noticed the bird take an acorn and hammer at it, while it was wedged in a crevice in the bark of a tree".[14]

An adult which appeared at the Agricultural College in Winnipeg on 17 November was thought to be the same bird.[2] [15] During the rest of November and December 1929, many bird enthusiasts observed this woodpecker at the college roosting in a pole and feeding on suet.[16] Harold Mossop on 19-20 January 1930 once again saw it on the St. Vital golf course where he had originally seen it.[17]

William MacHuga saw one at Sapton on 18 and 23 February 1930.[18] The third Manitoba record was of one at Bagot on 11 October 1930. The bird was seen by John Wallace and reported to Professor

KEY TO LEWIS' WOODPECKER RECORDS

1. Winnipeg, October 24, 1929 - January 20, 1930. One adult.
2. Sapton. February 18 & 23, 1930. One bird.
3. Bagot. October 11, 1930. One bird.
4. Souris. September 27, 1931. One bird.
5. Wawanesa. October 1 and November 10, 1931. One immature.
6. Selkirk. Mid-December, 1931. One adult.
7. Emerson. January, 1932. One adult.
8. Sandy Bay Indian Reservation. October 28, 1935. One adult male.
9. St. Norbert. October 17 and following days, 1937. One bird.
10. Belmont. November 6, 1937. One bird.
11. Souris. Fall, 1938. One adult.
12. Stonewall. November, December 1939 and February 1940. One bird.
13. Carman. October 27 and following days, 1941. One bird.
14. Winnipeg. January 21, 1942. Two observed.
15. Carman. April 24 & 25, 1943. One bird.
16. Winnipeg. May 20 and following days, 1943. One adult.
17. Stonewall. June 13, 1953. Adult.
18. Near Roblin. September 23, 1960. One immature.
19. West of Pine Falls. June 9, 1962. One adult.
20. Churchill. July 4, 7 & 8, 1966. One adult.
21. St. Norbert. November 11 - 27, 1976. First year bird.



Map 2. SIGHT RECORDS OF THE LEWIS' WOODPECKER IN MANITOBA.

V. W. Jackson with the note that it was "identified from the excellent coloured plate in *Birds of Western Canada*".[19] On 27 September 1931 Mrs. F. A. Hollies observed one at Souris.[20]

Lawrence wrote "John Walker, Wawanesa, reports that about October 1 he had a splendid view of a Lewis' Woodpecker . . . The bird was again seen on November 10, [1931], the grey collar, rosy breast, black head and back being plainly noted".[21] The final 1931 report was recorded by Lawrence thus — "Chester Campion, Mapleton School No. 5, West Selkirk, writes that about mid-December a strange woodpecker with dark red around its eyes and bill, rose-red breast, dark upper parts with a grey band around the neck, visited the feeding table which had been erected outside the schoolhouse. Reference to a bird book showed that the stranger was an adult Lewis' Woodpecker, making the third to be reported this fall and winter. L. E. McCall of Selkirk, one of our keenest nature-lovers, confirmed the identification".[22]

One spent January 1932 in Emerson and was observed by several people. *Chickadee Notes* carries an excellent account on this bird.[23]

The first Manitoba specimen came from Marius, Sandy Bay Indian Reservation, when Father O. Chagnon found one dead on 28 October 1935.[24] The specimen (No. 1.2-2760), an adult male, is now in the collection of the Manitoba Museum of Man & Nature.

On 17 October and subsequent days in 1937, C. L. Broley observed one at St. Norbert "busily engaged in storing acorns in crevices of a telephone pole to tide it over the winter".[25]

John C. Wilson found a Lewis' Woodpecker "in a starved condition" in his barnyard at Belmont on 6 November 1937. The bird died "after refusing to eat suet or other food" and the specimen was "sent to the Manitoba museum in the Auditorium, Winnipeg."[26] Unfortunately, the fate of this specimen is a mystery.

In the fall of 1938, Don Ferguson saw an adult storing acorns at Souris.[27] Irvine Gardner observed one in Stonewall regularly from early November to the end of December 1939, then for a couple of weeks in February 1940. "The bird lived right in town and although it was very wary, it was positively identified."[28]

Lawrence wrote "Magistrate R. F. T. Greer, Carman, Man., reports that he observed a Lewis' Woodpecker on October 27, [1941], and has seen it several times since in the same locality, either in or near the grounds of Carman hospital. Dr. F. L. Jamieson also saw the visitor."[30]

J. H. Kiteley saw two "on January 21, [1942], in River Park, about 300 yards east of the Elm Park bridge" in Winnipeg.[31] Magistrate Greer again observed one at Carman "in the same heavy oak trees in which the one noted in October 1941 was found."[33] This latter sighting was made on 24 and 25 April 1943.

On 20 May and for some days thereafter in 1943, an adult frequented gardens on Sackville St. in western Winnipeg.[34] Lawrence neglected to list the observers, when he wrote up this report.

Ten years passed before the species was again reported in the province. It was discovered by Frank Stanley and a few days later, on 13 June 1953, Ken Gardner and Andrew J. Kolach also saw it sitting atop utility poles and flycatching at Stonewall (Gardner pers. commun.)

On 23 September 1960 Mr. Darrel Crawford of McCreary saw an immature 10 miles south of Roblin on Highway 83. He wrote: "It was flying parallel to the car and as I drew abreast of it, the early morning sun was perfect to highlight the rosy breast and abdomen and whitish collar. It first perched on a fence-post in a peculiar hunched position with its tail spread against the post. It then flitted to a rosebush, plucked something and flew a few feet to a telephone pole where it appeared to stuff whatever it had into a crevice. It made the trip from the bush to the pole three times."[37]

On 9 June 1962, D. Harry Young of Winnipeg and three companions saw an adult along Hwy. 12 west of Pine Falls. Shortt wrote: "Unfortunately, it was late in the day when the discovery was made and mosquitoes were thick, so we could not stick it out to determine whether it was nesting thereabouts or not. It acted like it might be, flying from the top of a dead birch tree and back again, still with an insect in its bill, Mr. Young reported.

"There were holes in another birch tree a few yards away. Finally it seemed to put the insect in a crack in the bark, rather than eat it. But we could not wait, the bird was not disposed to move off even though we were close to the trees."[43]

One at Churchill on 4, 7 and 8 July 1966 was observed by Dr. A. Keast, Dr. J. B. Falls, W. E. Rees, and John Lamey.[13] As indicated by Map 2 this is the only record for northern Manitoba.

The most recent provincial record was of one present on St. Pierre Street in St. Norbert from 11 to 27 November 1976. This first-year bird was discovered by Casimir C. Lindsay, whose yard it frequented.[7] [11] It was seen by numerous birders. On the three days that the senior author observed it, much of its time was spent storing bur oak (*Quercus macrocarpa*) acorns and being highly aggressive in its pursuit of Red Squirrels (*Tamiasciurus hudsonicus*) and Gray Squirrels (*Sciurus carolinensis*). Once I saw it retrieve and eat at least two acorns hidden in a small rotted cavity of a Manitoba maple (*Acer negundo*).

Godfrey states that the breeding range of this species extends from southern B.C., southwestern Alberta Montana, and southwestern South Dakota south to California, Arizona, and New Mexico.[8] According to Salt and Salt in *The Birds of Alberta*, this species' easterly extralimital wanderings usually occur during September and October during the fall and during the month of May in spring.[42]

Including the initial 1929 sighting, there have been 21 sight records of the Lewis' Woodpecker in Manitoba, of which only one observation involved more than one bird (brace in Winnipeg, 1942).

In the 15 years, 1929 to 1943 inclusive, this species was recorded in the province every year except for three (1933, 1934, and 1936). In the following 37 years, 1944 to 1980 inclusive, the Lewis' Woodpecker has been recorded only in five years and must be classed of irregular occurrence in Manitoba.

We wish to thank Herbert W. R. Copland, J. B. Gollop and Rudolf F. Koes for supplying us with additional information.

[1]BIRD, R. D. 1956. The American Egret Nesting in Manitoba. Blue Jay. 14:7.

[2]BLAKELY, R. M. 1930. Lewis' Woodpecker in Winnipeg, Man. Canadian Field-Naturalist 44:96.

[3]CARTWRIGHT, B. W. 1942. Red-bellied Woodpecker in Manitoba. Canadian Field-Naturalist 56:45-46.

[4]GARDNER, K. 1971. Wild Wings. Winnipeg Tribune. Jan. 16, 1971.

[5]GARDNER, K. 1971. Wild Wings. Winnipeg Tribune. Jan. 23, 1971.

[6]GARDNER, K. 1971. Wild Wings. Winnipeg Tribune. Feb. 13, 1971.

[7]GARDNER, K. 1976. Wild Wings. Winnipeg Tribune. Nov. 27, 1976.

[8]GODFREY, W. E. 1966. The birds of Canada. Nat. Mus. Canada Bull. 203, Queen's Printer, Ottawa. 428 pp.

[8]GREEN, J. C. & R. B. JANSSEN. 1975. Minnesota Birds Where, When, & How Many. University of Minnesota Press, Minneapolis. 217 pp.

[10]HATCH, D. 1976. Chickadee Notes. No. 109. Winnipeg Free Press. Jan. 31, 1976.

[11] HATCH, D. 1977. Chickadee Notes. No. 151. Winnipeg Free Press. Jan. 8, 1977.

[12] HATCH, D. 1978. Chickadee Notes. Winnipeg Free Press. Feb. 25, 1978.

[13] LAMEY, J. 1967. Unusual sight records of birds near Churchill, Manitoba. Can. Field Nat. 81:228-229.

[14] LAWRENCE, A. G. 1929. Chickadee Notes. No. 450. Winnipeg Free Press. Nov. 7, 1929.

[15] LAWRENCE, A. G. 1929. Chickadee Notes. No. 452. Winnipeg Free Press. Nov. 21, 1929.

[16] LAWRENCE, A. G. 1929. Chickadee Notes. No. 457. Winnipeg Free Press. Dec. 26, 1929.

[17] LAWRENCE, A. G. 1930. Chickadee Notes. No. 461. Winnipeg Free Press. Jan. 23, 1930.

[18] LAWRENCE, A. G. 1930. Chickadee Notes. No. 479. Winnipeg Free Press. May 30, 1930.

[19] LAWRENCE, A. G. 1930. Chickadee Notes. No. 504. Winnipeg Free Press, Nov. 21, 1930.

[20] LAWRENCE, A. G. 1931. Chickadee Notes. No. 557. Winnipeg Free Press. Nov. 27, 1931.

[21] LAWRENCE, A. G. 1931. Chickadee Notes. No. 560. Winnipeg Free Press. Dec. 18, 1931.

[22] LAWRENCE, A. G. 1932. Chickadee Notes. No. 565. Winnipeg Free Press. Jan. 22, 1932.

[23] LAWRENCE, A. G. 1933. Chickadee Notes. No. 618. Winnipeg Free Press. Jan. 27, 1933.

[24] LAWRENCE, A. G. 1935. Chickadee Notes. No. 764. Winnipeg Free Press. Nov. 15, 1935.

[25] LAWRENCE, A. G. 1937. Chickadee Notes. No. 866. Winnipeg Free Press. Oct. 29, 1937.

[26] LAWRENCE, A. G. 1937. Chickadee Notes. No. 869. Winnipeg Free Press. Nov. 19, 1937.

[27] LAWRENCE, A. G. 1938. Chickadee Notes. No. 919. Winnipeg Free Press. Nov. 4, 1938.

[28] LAWRENCE, A. G. 1940. Chickadee Notes. No. 993. Winnipeg Free Press. April 5, 1940.

[29] LAWRENCE, A. G. 1941. Chickadee Notes. No. 1054. Winnipeg Free Press. June 6, 1941.

[30] LAWRENCE, A. G. 1941. Chickadee Notes. No. 1080. Winnipeg Free Press. Dec. 5, 1941.

[31] LAWRENCE, A. G. 1942. Chickadee Notes. No. 1087. Winnipeg Free Press. Jan. 23, 1942.

[32] LAWRENCE, A. G. 1942. Chickadee Notes. No. 1090. Winnipeg Free Press. Feb. 13, 1942.

[33] LAWRENCE, A. G. 1943. Chickadee Notes. No. 1154. Winnipeg Free Press. May 7, 1943.

[34] LAWRENCE, A. G. 1943. Chickadee Notes. No. 1157. Winnipeg Free Press. May 28, 1943.

[35] LAWRENCE, A. G. 1952. Chickadee Notes. No. 1624. Winnipeg Free Press. July 4, 1952.

[36] LAWRENCE, A. G. 1954. Chickadee Notes. No. 1706. Winnipeg Free Press. Jan. 29, 1954.

[37] MOSSOP, H. 1960. Chickadee Notes. No. 303. Winnipeg Free Press. Nov. 4, 1960.

[38] MOSSOP, H. 1960. Chickadee Notes. No 458. Winnipeg Free Press. Oct. 26, 1963

[39] MOSSOP, H. 1966. Chickadee Notes. No. 681. Winnipeg Free Press.

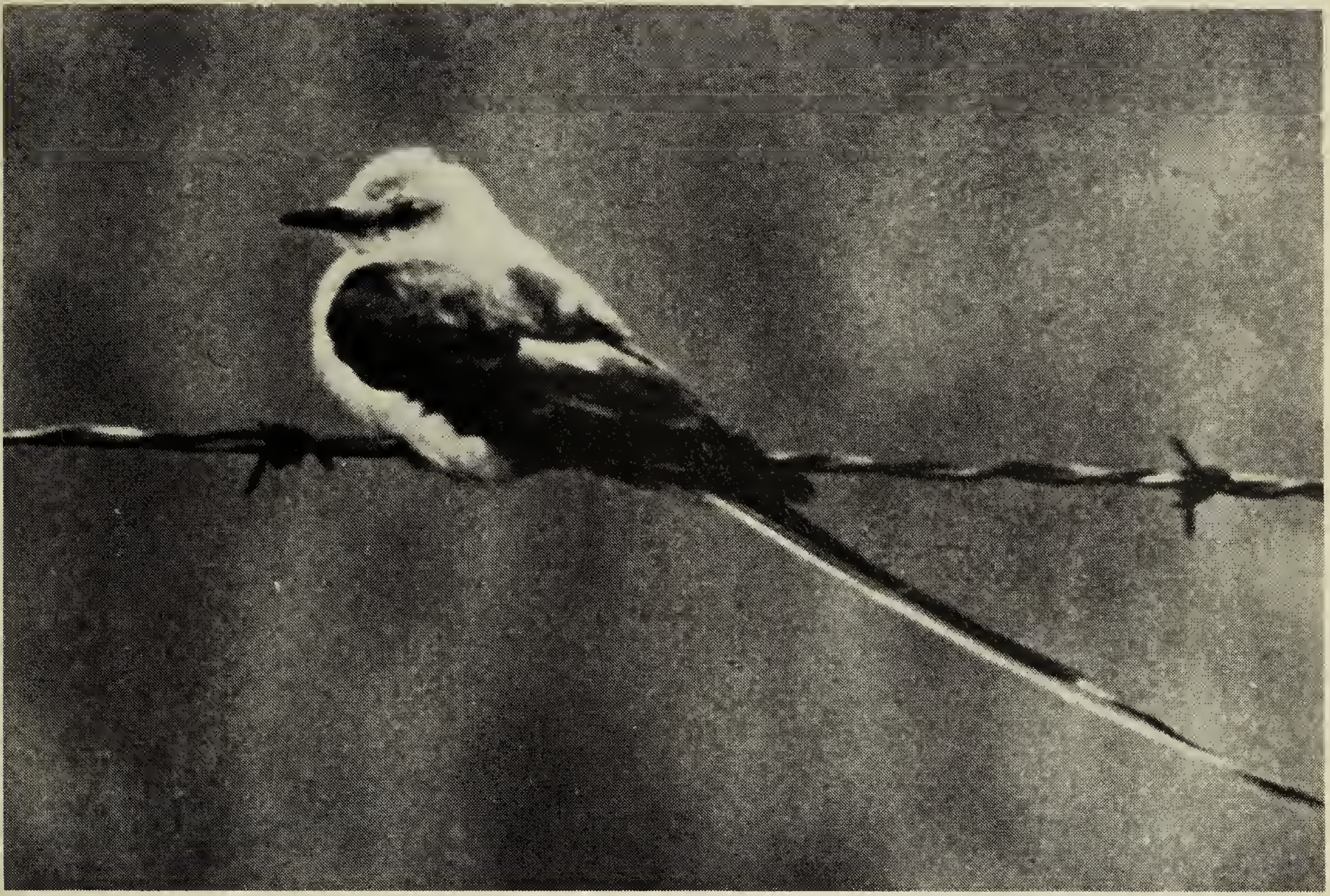
[40] RICHARDSON, W. C. Letter to R. W. Nero, Nov. 17, 1967.

[41] ROBINSON, B. Letter to H. W. R. Copland, Feb. 29, 1972.

[42] SALT, W. R. and J. R. SALT. 1976. The birds of Alberta. Hurtig Publ. Edmonton 498 pp.

[43] SHORTT, A. H. 1962. Wild Wings. Winnipeg Tribune, June 18, 1962.

[44] STEWART, R. E. 1975. Breeding birds o North Dakota. Tri-College Center fo Environmental Studies. Fargo, Nort Dakota. 295 pp.



Scissor-tailed Flycatcher. *Ron Jensen*

ANOTHER SASKATCHEWAN RECORD OF THE SCISSOR-TAILED FLYCATCHER

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On 28 June 1981 our family — my mother, Anna Friesen, my brother and sister-in-law, Ernie and Phyllis, and I — were returning from a Sunday afternoon drive in the Rosthern, Saskatchewan, area. At 1740 we were proceeding north along the grid road which leads from the national historic site at Fish Creek. We had already passed the old Fish Creek church at the former ferry landing and were driving slowly along at 35 km/h through this interesting countryside.

Mentally I was ticking off the identification of birds seen along the way. Two Turkey Vultures were riding the updrafts from the cliffs of the South Saskatchewan River, for the road here skirts the east bank and a pair of Black-billed Cuckoos flew in close pursuit from one aspen bluff to another.

Then 5 km south of the junction of the grid road and Highway No. 312 at Gabriel's Bridge, I spotted ahead of us a whitish-gray bird with black wings. It was sitting on the top strand of the barbed-wire fence which borders the east side of the road. I thought of a Loggerhead Shrike, but the body seemed to be a lighter gray, and on coming closer, I recognized its outline to be that of a flycatcher — a Scissor-tailed Flycatcher!

I had now driven past it, but immediately I stopped the car, walked towards it, and observed it with my 6x30 binoculars. The distance was about 10 m. A bright hazy sun at my back made for good viewing conditions. Not being familiar with the species except from having seen it in my bird books, I was not sure at that moment of all its distinctive features. This bird's tail was relatively short, but I did note that it was slightly longer than the rest of the bird. (My brother and I later, when observing the flycatcher together, estimated the tail's length to be 15-17 cm.) One "blade" of the scissors was 1-2 cm shorter than the other one. The tail did not hang down but stuck out slantwise, as in Singer's illustration of an immature specimen in *Birds of North America*.[9]

I recalled that the Scissor-tailed Flycatcher should have some pink markings, but as it continued to sit on the wire, facing in my general direction, I could distinguish none at all. I noted the pearly-gray colouration of the back of its head and of the back itself. The underparts were lighter still, with the lower belly showing a buffy tinge. The blackish wings showed edgings of white.

Then the bird dropped to the ground to pick up a beetle and returned to its perch. As it flew I saw very pale pink wing linings and, more noticeably, a salmon-red patch underneath where the wing joins the body — the "axillars." Confident now that I had seen what I could, I stepped back to the car to pick up my Peterson's *Field Guide to Western Birds* and check my findings.[7]

As I returned to the bird a few minutes later, a truck came up at high speed. I thought this would end my observations, but when the dust cleared, the bird was sitting as before, unperturbed. (I was to learn that evening from Pough that these flycatchers "often sit on roadside fence wires, oblivious of passing cars."[8] Bent says it is "quite familiar and unafraid."[1])

My brother now joined me with his 7x50 binoculars, and we spent a further 15 min. observing the bird, again at close range. Since the field behind the fence was new breaking which exposed many beetles and grasshoppers to easy view, the scissor-tail had no trouble in finding its food. Six times it left its perch to secure an insect from the ground, then sat once more, sometimes on the lower wire as well, sometimes on the near fencepost. Thus we had a chance to view it from all angles. Its tail, however short, seemed like overlapping black and white ribbons during flight, and it scissored apart quite markedly. The ends of the fork curved out slightly in lyre-like fashion.

As for these birds feeding off the ground, Bent quotes Samuel N. Rhoades, who "observed them for hours gleaning insects in the open pastures and salt flats . . ., alighting without hesitation in the short grass to secure or devour their food."[1] We left off our own observations when the flycatcher flew out a distance into the field and came down in a series of zigzags to alight on a hummock of sod. Before driving away,I wrote down the details of the sighting.

At home that same day I checked further into references concerning the Scissor-tailed Flycatcher. Godfrey lists its status in Canada as "casual or accidental," its breeding range being the *southern* United States (Colorado and Kansas and south), and does not include an illustration in his *Birds of Canada*.[3] He does include records of six sightings from the Prairie Provinces (four from Manitoba and two from Alberta), but these numbers have increased since.

There had been four previous sightings in Saskatchewan. They occurred near Milestone (1970), Lumsden (1975), Tugaske (1978) and Saskatoon (1980).[2] [6] [5] [4] Thus this is the fifth sighting for the province and the most northerly one.

The Scissor-tailed Flycatcher is by no means a stranger to even the far northern parts of the Prairie Provinces, however. Bent describes it as having "wandered widely";[1] and Seton quotes Professor Bell of the Canadian Geological Survey, 1882, who writes: "I have learned since that these remarkable birds were occasionally seen at the posts of the Hudson's Bay Company, all the way west to the valley of the Mackenzie River."[13] Canada's first specimen was obtained at York Factory on Hudson Bay in 1880.

Altogether there have been 14 records for Manitoba, including five specimens collected.[2] The last record was near Whitemouth in 1979 and followed the previous record by 27 years.[12] Alberta has three records, one of them also occurring in the northern part of the province, at Fort Chipewyan in 1952.[10] A previous sighting occurred at Claresholm in 1943, and the last sighting occurred, like this one, along the South Saskatchewan River near Bow Island in 1964.[11]

There have been no specimens collected in either Alberta or Saskatchewan but reliable photographs were taken of the Saskatoon bird. Personal commitments prevented me from returning later that evening to the location where I had seen the Scissor-tailed Flycatcher. When I did go back the next day, with a camera and telephoto lens, the bird was nowhere to be found.

The number of fairly recent sightings in our province (and one in Manitoba) could indicate that this is a species that bird watchers should be on the lookout for. For, as Salt concludes about it in his *Birds of Alberta*: "Those who observe this colorful bird in the Prairie Provinces are fortunate indeed."[10]

[1] BENT, A. C. 1963 (reprint of 1942). Life histories of North American flycatchers, larks, swallows, and their allies. Dover, New York. 555pp.

[2] BRADLEY, J. E. 1971. A sight record of the Scissor-tailed Flycatcher for southern Saskatchewan. Blue Jay 29:34.

[3] GODFREY, W. E. 1966. Birds of Canada. Nat. Mus. Canada Bull. 203, Ottawa. 428pp.

[4] HARRIS, W. C. 1981. Prairie Provinces region. Am. Birds 35:195-196.

[5] HEDGER, H. 1979. Scissor-tailed Flycatcher at Tugaske, Saskatchewan. Blue Jay 37:128.

[6] MacAULAY, A. J. Sight record of the Scissor-tailed Flycatcher for Saskatchewan. Blue Jay 34:95.

[7] PETERSON, R. T. 1961. A field guide to western birds. Houghton Mifflin, Boston. 366pp.

[8] POUGH, R. H. 1949. Audubon bird guide, eastern land birds. Doubleday, Garden City, N.Y. 312pp.

[9] ROBBINS, C. S., B. BRUUN, H. S. ZIM, and A. SINGER. 1966. Birds of North America. Golden Press, New York. 340pp.

[10] SALT, W. R., and J. R. SALT. 1976. The birds of Alberta. Hurtig, Edmonton. 498pp.

[11] SEALY, S. G. Third record of Scissor-tailed Flycatcher in Alberta. Blue Jay 26:82.

[12] TAYLOR, P. 1979. Scissor-tailed Flycatcher near Whitemouth, Manitoba. Blue Jay 37:228.

[13] THOMPSON, E. E. (E. T. Seton). 1975 (reprint of 1891). The birds of Manitoba. Premium Ventures, Winnipeg. 643pp.

POSSIBLE SIGHTING OF GLOSSY IBIS IN SASKATCHEWAN

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On 14 August 1979, Fred Lahrman received a call from Dave Duffus (Ducks Unlimited), who reported that a dark ibis had been spotted by a DU staff member near Courval, on the west end of Old Wives Lake. The next day we drove out to the area, but could not find the bird, which we assumed to be a White-faced Ibis (*Plegadis chihi*).

White-faced Ibis had first been reported, and confirmed in Saskatchewan in 1976.[4 10] Until 1979, there had been several other sightings in the province.[3a] The very similar Glossy Ibis (*Plegadis falcinellus*) had not been previously reported from the prairie provinces to my knowledge.

On 16 August, I talked to Phil Browne, who had observed the ibis, and also was able to read his detailed, on the spot field notes. The ibis was carefully observed for about 30 minutes, in good light, with 10x50 binoculars and 45x spotting scope, at distances of 20-50 yards. Two photos taken at the time clearly show that it was a *Plegadis* species, but the diagnostic markings, described below, are not apparent.

At the same time, Browne showed me the exact location on a topographic map of the area. The slough where the ibis was seen was on a prairie "trail", on the east side of a grid road running north-south through the site of the former village of Eastleigh. By measurement of the map, it was 11 km N.E. of Courval and 7½ km S.S.E. of Eastleigh.

It was clear that, with the little information we had, Lahrman and I had been looking in the wrong place. As Browne's notes indicated the possibility that the ibis was not a White-faced, we decided to try again, and hopefully get documentative photos. On the 17th, we set out again and searched the area but without seeing the bird. The ibis could have been at any one of hundreds of sloughs in the area, or could have been at Old Wives Lake to the south, or Chaplin Lake to the west. In any case, it was not seen again.

The ibis, as described in Browne's notes, is clearly an adult bird showing the typical chestnut plumage, with metallic greenish and purplish gloss. A few light feathers on the throat and above the eye indicate that it was just starting to move into basic, or winter, plumage.

The notes reveal that the eye was completely dark (brown with black pupil), showing no red colouration. The legs were dark, also showing no reddish. The colour of facial skin was not noted, but when I asked him about it, Browne recalled it as being dull or greyish, again with no evidence of red. There was no trace of the border of white feathers surrounding the eye and bare facial skin seen in the alternate, or breeding, plumage of the White-faced Ibis.

The two species of ibis, regarded by some authorities as conspecific,[5 6] are notoriously difficult to separate, especially outside of the breeding season. The diagnostic markings are best summarized in an article by H. Douglas Pratt, in *Birding* magazine,[7] as follows. The bird observed by Browne agrees with *P. falcinellus* in: 1) brown, not red, iris; 2) dark legs with no trace of carmine; 3) greyish, not carmine or reddish facial skin, and 4) no trace of white feathering bordering the bare facial skin.

Again following Pratt,[7] these diagnostic features could be refuted thusly: 1) some winter White-faced Ibis *may* have brown irises, and under poor light conditions, carmine irises may appear brown (although in this case viewing conditions were good); 2) outside of breeding season, legs of both species appear olive-grey, and Glossy shows carmine at ankle joint in full breeding dress, which was not noted (but which would be hard to see in the field); 3) the bright carmine facial skin of breeding condition White-faced Ibis is "less intense" after breeding, and fades to "dark smoke-grey in the winter. As well, facial skin of Glossy Ibis is described as being two-toned: "plumbeous . . . margined above and below with pale sky-blue." This two-toned effect was not observed, but again this fades after breeding; 4) the white facial feathers of White-faced Ibis *may* have already been ost, although at least some trace of them should have been present at this date.

I reviewed the records in *American Birds* for the last ten years (vols. 25 hrough 35) for records of the Glossy bis to the north and west of its usual range. The areas surveyed were: Western Great Lakes Region, Middle-western Prairie Region, South Texas Region, Southern Great Plains Region, Northern Great Plains Region, and Prairie Provinces Region (split from Northern Great Plains commencing vol. 33).

Predictably, the most numerous eports, 15 sightings of 24 birds, were rom the Middle-western Prairie Region, the most south-easterly of the regions surveyed. The Western Great Lakes Region had 4 sightings of 7 Glossy Ibis, 3 sightings in Wisconsin and 1 in Michigan. Both regions reported larger numbers of White-faced and *Plegadis* sp. ibises, but the number of Glossy Ibis sightings was higher than I expected.

There was a different pattern of seasonal distribution between the two regions. In the Middle-western Prairie Region, the great majority of Glossy Ibis were seen up to the end of May, only 2 birds in 2 sightings in June-July, and 3 birds in 2 sightings in fall. In the Western Great Lakes Region to the north, there were *no* spring sightings, 1 bird in June-July, and all the rest in the fall. This might suggest that these more northerly records were the result of post-breeding dispersal.

Only White-faced Ibises were reported from the Southern Great Plains Regions, which lies west of the Mississippi River and includes Nebraska, Kansas, Oklahoma, and Texas excluding the extreme south and Gulf coast. This area, the South Texas Region, had one sighting of a single Glossy Ibis, in April, at Galveston on the Gulf coast.

For the Northern Great Plains and Prairie Provinces Regions, there is a single record of 3 Glossy Ibis, in late August, near Sioux Falls, South Dakota, which is in the southeastern part of that state.[2] The only other possible record is of an unidentified *Plegadis* sp. ibis seen "about May 18" near Langruth, Manitoba, in 1972.[3]

Three years later, again in May, White-faced Ibises were definitely identified "for the first known sight records in Manitoba" at Lake Winnipeg and Oak Hammock Marsh.[8] As noted earlier, Saskatchewan had its first sightings the following year, 1976, one of which was photographed to confirm the species for the provincial list.[4] [10] While Saskatchewan had several subsequent sightings, there have been no more in Manitoba.

In Alberta, White-faced Ibis was first sighted in June, 1974, at Pakowki Lake, in the south-eastern part of the province.[13] They have been seen there at least two other years, 1975 and 1979, and there is some indication of breeding in 1975.[1] [13] There are also sightings, "1 pair and 2 singles" at Stirling Lake near Lethbridge in 1975.[9]

In North Dakota, South Dakota, and Montana, White-faced Ibises are seen more regularly and in larger numbers. Breeding has been confirmed in North Dakota, [11] [12] and South Dakota,[12] and is suspected in Montana.[9] [12]

The main problem with the positive identification of the ibis in question is that it was not in full breeding plumage, as indicated by the few white feathers on the throat and above the eye. While soft part colours such as legs and facial skin fade relatively quickly, the ibis, if White-faced, would seem to have developed extremes of full-winter "plumage" in the soft parts while barely beginning to change in feathering. In particular, it seems odd that there would be no trace of the white facial border feathers, while the rest of the plumage was nearly intact in the alternate.

Finally, I would note that American observers in the regions surveyed (see above), who are more familiar with both species, felt competent enough to identify Glossy Ibises, as distinct from White-faced, after the breeding season to as late as September 26, the extreme late date recorded.[14] It would seem that the suspected Saskatchewan bird, at the relatively early date of August 14, should still be specifically identifiable under ideal conditions.

While not previously published, this record seems to warrant inclusion in the list of hypothetical species reported for Saskatchewan. In particular, the detailed field notes by Phil Browne may be the strongest argument for its inclusion. Without these, there would have been no case for suggesting that the ibis was a Glossy, rather than the more likely White-faced. I should note that the identification proposed is my own, and not the observer's, and that if in error, that error is also mine. Finally, I would be pleased to hear from any observers who are more familiar with the sequence of post-breeding soft part and plumage changes in both species of *Plegadis* ibises.

[1] GOLLOP, J.B. 1979. Prairie Provinces Region. American Birds 33:872-874.

[2] HOUSTON, C.S. 1972. Northern Great Plains Region. American Birds 26:78-80.

[3] HOUSTON, C.S. 1972. Northern Great Plains Region. American Birds 26:869-872.

[3a] HOUSTON, C.S., M.I. Houston and J.B. Gollop. 1981. Additions to the Check-list of Saskatchewan Birds since 1969. Blue Jay 39(3):145-154.

[4] LAHRMAN, F.W. 1976. White-faced Ibis in Saskatchewan. Blue Jay 34:238.

[5] PALMER, R.S. (Ed.). 1962. Handbook of North American Birds, Vol. 1, (Loons through Flamingos). Yale University Press, New Haven and London.

[6] PARKES, K.C. 1961. Systematic Notes on North American Birds. 1. The Herons and Ibises (Ciconiiformes). Annals of the Carnegie Museum 33:287-293.

[7] PRATT, H.D. 1976. Field Identification of White-faced and Glossy Ibises. Birding 8:1-5.

[8] SERR, E.M. 1975. Northern Great Plains Region. American Birds 29:867-870.

[9] SERR, E.M. 1975. Northern Great Plains Region. American Birds 29:995-999.

[10] SERR, E.M. 1976. Northern Great Plains Region. American Birds 30:969-972.

[11] SERR, E.M. 1978. Northern Great Plains Region. American Birds 32:1175-1178.

[12] SERR, E.M. 1979. Northern Great Plains Region. American Birds 33:874-875.

[13] SMITH, W.W., and C.A. WALLIS. 1976. Preliminary Investigation of the Birds of Pakowki Lake. Blue Jay 34:168-171.

[14] TESSEN, D.D. 1977. Western Great Lakes Region. American Birds 31:179-182.

RECENT SCOTER BROOD OBSERVATIONS AT CHURCHILL, MANITOBA

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Godfrey stated that "actual breeding data are few" for the Surf Scoter in Canada.[4] In this paper, I report my observations of White-winged and Surf Scoter broods near Churchill, Manitoba, in 1980, and subsequent 1981 observations.

On 25 July 1980, I found a female White-winged Scoter with a brood of five ducklings in a muskeg wetland adjacent to Goose Creek at the Hydro Road crossing, about 11 km south of Churchill. That same day, I observed a female Surf Scoter with a brood of four ducklings on a large tundra wetland about 20 km east of Churchill near the National Research Council Launch Site. This was the first known brood record for the Surf Scoter in northeastern Manitoba.

Godfrey described the White-winged Scoter as the "commonest" scoter in most areas of northern Canada.[4] Nero found White-winged Scoters widely distributed in the boreal forest region of northeastern Saskatchewan.[8] Mowat and Lawrie reported a female accompanying a brood of seven of Nueltin Lake on the Manitoba-Keewatin border in 1947.[7] At Churchill, the White-winged Scoter is a regular and fairly common summer visitor.[6 9] This scoter occurs primarily in flocks of males during late June and early July at Cape Churchill.[3] Although frequently observed, and regularly in large flocks, only one previous nest record has been published for White-winged Scoters at Churchill.[1]

The breeding range of the Surf Scoter is similar to that of the White-winged Scoter, but apparently more discontinuous in eastern and central Canada.[2] Harper reported nesting season observations from northeastern Saskatchewan, and numerous, large, post-breeding flocks occurred in that region.[5] Surf Scoters are apparently much rarer at Churchill. Taverner and Sutton considered this species an irregularly common transient.[9] Cooke et al. found them the rarest of the scoters at Cape Churchill, where they occurred mainly in offshore flocks of 100 or more.[3] Jehl and Smith also reported this species as the rarest scoter at Churchill.[6] They provided no evidence of nesting, although a pair on a stream near Goose Creek in mid-June was mentioned.

My observations of scoters at Churchill during 24-26 July 1980 differed from most earlier accounts. On 24 July, I encountered a mixed-species flock including 139 Surf, 12 Black, and one White-winged Scoter on Bird Cove, about 18 km east of Churchill. I returned to Churchill during 7-11 July 1981, and found the number of all three scoters to be different from 1980. Searching the same areas investigated the previous year revealed no scoters in muskeg wetlands along the Hydro Road, and none on the tundra wetlands near the Launch Site. On 9 July, one flock made up of 116 Black, 7 White-winged and 3 Surf Scoters was found in the surf near Fort Churchill. During the evening of 7 July, one flock of 6 male White-winged Scoters was seen flying up the Churchill River, about 18 km south of the townsite. No evidence of nesting was obtained at Churchill during my 1981 visit.

[1]ALLEN, A. A. 1945. Some changes in the bird life of Churchill, Manitoba. Auk 62:129-134.

[2] BELLROSE, F. C. Jr. 1976. Ducks, geese and swans of North America. Stackpole Books, Harrisburg, Pa. 543 pp.

[3] COOKE, F., R. K. ROSS, R. K. SCHMIDT and A. J. PAKULAK. 1975. Birds of the tundra biome at Cape Churchill and La Perouse Bay. Can. Field-Nat. 89:413-422.

[4] GODFREY, W. E. 1966. The birds of Canada. Nat. Mus. Canada, Bull. 203. 428 pp.

[5] HARPER, F. 1953. Birds of the Nueltin Lake expedition, Keewatin, 1947. Am. Midl. Nat. 49:1-116.

[6] JEHL, J. R., Jr., and B. A. SMITH. 1970. Birds of the Churchill region, Manitoba. Manitoba Mus. Man and Nature, Spec. Publ. 1. 87 pp.

[7] MOWAT, F. M. and A. H. LAWRIE. 1955. Bird observations from southern Keewatin and the interior of northern Manitoba. Can. Field-Nat. 69:93-116.

[8] NERO, R. W. 1967. The birds of northeastern Saskatchewan. Saskatchewan Nat. Hist. Soc., Spec. Publ. 6. 96 pp.

[9] TAVERNER, P. A. and G. M. SUTTON. 1934. The birds of Churchill, Manitoba. Annals Carnegie Mus. 23:1-83.

PRINCE ALBERT BLUEBIRD TRAIL REPORT — 1981

KEVIN ASCHIM, 1175-22nd Street East, Prince Albert, Saskatchewan, S6V 1P2
and KIM HRUSKA, 841-22nd Street East, Prince Albert, Saskatchewan. S6V 1N9.

This report contains the results of the 1981 season for the Prince Albert Bluebird Trail. In all, 106 nest boxes were checked between 22 July and 27 July.

This year, we found one Tree Swallow nest that contained nine young, the most we have ever had in a single box. Prior to this, we had only occasionally found boxes that contained eight young.

House Sparrows have been only a minor annoyance in the past. However, this year they burgeoned to 23 of 106 boxes from only 5 of 108 boxes last year.

Among the six empty boxes, three that were adjacent to poplar bluffs contained a loose aggregation of twigs, likely House Wrens' attempts at preventing an intrusion into their territory.

Occupancy of 106 boxes		*Success*	
		Young fledged	*Young died*
Tree Swallow	76	410	11
House Sparrow	23	77 (all destroyed)	1
Mountain Bluebird	1	7	0
Empty	6		

Tree Swallow Mortality — 2.6%
Tree Swallow Average Clutch Size — 5.7
Tree Swallow Average Fledged 5.4

In the past, we have had good success with Tree Swallows and few problems with House Sparrows but great difficulty in establishing the Mountain Bluebird in our nest boxes. Within the past 5 years we have had only two Mountain Bluebird nests, although there have been many sightings in the area. Because of this, we are taking down many sections of the trail located along unsuitable stretches and moving them exclusively to pastureland habitat more appropriate to bluebirds. Perhaps this will lead to more promising results in future years.

Tree Swallow. *Kathy Morck*

NEW RECORD OF A SUMMER TANAGER IN MANITOBA

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On 13 June 1981, a Summer Tanager was found dead after collision with a window on a farm 2 km northwest of Brandon, Manitoba. The specimen is a male in pre-adult plumage that is highly varied in color and pattern. The head is irregularly patterned in olive, red and yellow and the breast in red and yellow. The back, wings and tail are olive-brown to orange-brown. The extent of red in the plumage and overall coloration corresponds to that described by Pearson and Godfrey.[5] [2] No black feathers are evident and the upper mandible lacks the pronounced tooth characteristic of other tanagers. Dissection revealed enlarged testes and the bird was presumed to be in breeding condition.

Only three previous specimens of Summer Tanager have been collected in Manitoba. A pre-adult male similar to that reported above was found near The Pas in 1966.[1] This species is listed as accidental in southeastern Manitoba where the two records reported are based on specimens in the Manitoba Museum of Man and Nature from Woodlands 24 May 1966 (1st year male) and from Selkirk 11-18 November 1978 (H.W.R. Copland, pers. comm.).[4] There is also a sight record near Portage La Prairie for 28 May 1953.[3] The Brandon specimen is preserved as a whole mount in the B.J. Hales Museum, Brandon University, Brandon, Manitoba.

I thank Tony Miller and Barbara Robinson for assistance in identification. David Brownridge notified the author of the location of the bird.

[1] GODFREY, W.E. 1966a. A Summer Tanager in Manitoba. Canadian Field-Nat. 80:254.

[2] GODFREY, W.E. 1966b. The birds of Canada. Nat. Mus. Canada Bull. 203. 428 pp.

[3] LAWRENCE, A.G. Chickadee notes No. 1678. Winnipeg Free Press, 17 July 1953.

[4] MANITOBA NATURALISTS SOCIETY. 1980. Birder's guide to southeastern Manitoba. Eco Series No. 1, Winnipeg. 58 pp.

[5] PEARSON, T.G., Ed. 1917. Birds of America. Doubleday & Company Inc., New York.

GREAT CRESTED FLYCATCHER

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For the past several summers a pair of Great Crested Flycatchers has nested somewhere in the immediate area of our cottage at Whytewold (in the southwest corner of Lake Winnipeg), but I had not been able to find the nesting site.[1]

Hoping to attract this species to our yard, in the spring of 1981 my husband built a nesting box which was attached to an old poplar tree at the edge of the wooded area on our property. The box had a gabled roof and measured 28 cm by 16 cm by 15 cm with an opening (5 cm in diameter) situated 6.2 cm from the top of the box. The stoop was placed 2.5 cm below the opening. The box was 3 m from the ground and close to one side stood a tall thin ash and Saskatoon bush. The foliage gradually spread out so that some leaves of the ash obscured part of the opening from my view.

After the erection of the box I naturally looked and listened for the arrival of these birds in our area. Sure enough, on 31 May, I heard their raucous calls down the lane. I loitered around, hoping that the birds would come into our yard and maybe, just maybe, might see our white nesting box. Lo and behold, that is just what happened a couple of days later. I was so excited that I could hardly contain myself and ran to tell my husband that the birds were examining the box. They looked around it and went in and out then flew away. It wasn't until 6 June that they finally chose our box for their nesting site.

As both sexes appear identical in appearance it was difficult to determine if both the male and female took part in the nest building. However, it appeared to me that the male gave most of the shrieking calls when chasing after the female during the time she scoured the immediate area for suitable materials. They were always together and the loud "kweep" and the "wick-wick-wicks" could be heard over a block away.

It was extremely interesting to watch the bird when it was taking materials into the box. It never went directly to the hole but always sat on one of the bare poplar branches behind the box. Then it sneaked around the corner, as it were, passing under a leafy branch of the slim ash tree, and entered the box. When coming out it did so cautiously, looked all around, then dipped lower down into some hazelnut bushes, before flying away.

As is the usual procedure for flycatchers, both male and female performed aerial acrobatics to catch insects, and invariably perched on the bare branches of surrounding trees. The same procedure was followed when they fed the nestlings.

If a Red or Grey Squirrel ran up and down a tree close to the nesting site both sexes would attack it. There was a pair of wrens nesting in a little box hanging from a nearby oak tree, and the Great Crested Flycatchers saw to it that the little wrens did not dare venture close to the old poplar. Also, later on I noticed that a male oriole and a robin, in need of food for their young, began to pick Saskatoon berries off the bush close to the nestbox and both sexes flew at them. It amused me to see, however, that they did not use this aggressive behaviour towards a fledged oriole when the parent left it on the Saskatoon bush for a couple of hours.

Great Crested Flycatcher. *Sheina Wait*

I believe incubation commenced about 15 June but I could not determine whether both male and female participated in this process. Even the experts do not seem to agree on this point.[2 3] On many occasions an adult would come out and the other bird would give the loud call; then both adults flew around the treetops and one would enter the box, but whether it was always the female I cannot say.

On 28 June I noticed one adult darting around for insects and then it sat on a bare branch, but I was not able to see if either adult was carrying food into the box. The incubation period evidently takes from 13 to 15 days so I therefore watched more closely.[2 3] On 29 June I noticed an adult enter the box, turning its head sideways and backwards before it did so. But it was not until 4 July that I was able to establish that both adults tended the nestlings. Both adopted the same procedures. After catching an insect they did not fly directly to the nestbox but perched on a bare limb first, dipped down into the bushes and then flew to the box, usually perching on the rim of the hole and very rarely using the stoop.

During each of the next 3 days I paid particular attention to the parents' activities from approximately 1600 to 1715. On 6 July I observed the adults make eight trips to the box with various insects, including fishflies, midges, housefly, Painted Lady butterfly, and what appeared to be a small beetle. On several occasions droppings were brought out, at which time the adults flew many feet away for disposal. At all times I noticed that both birds were extremely wary of the slightest sound made by other birds, squirrels, and/or other intruders.

On 11 July I realized that the nestlings were nearing maturity; during feeding times more of the adult's body protruded from the hole.

On 14 July, in addition to casual observations, I managed to observe from 1540 until 1710. At 1540 one young head protruded from the hole and then drew back in, but at 1700 the fledgling came half way out. When food was brought I could see young ones in the box bobbing up and down, but I was not able to determine the number.

Unfortunately, I was not able to be at the cottage again until noon on the 17 at which time I found the nestbox deserted. I was very sorry that I had missed the exciting climax to the nesting period. Due to unforeseen circumstances it was necessary for us to leave the cottage on the 18 for some weeks. Before leaving, my husband took down the box and carefully unscrewed the bottom.

I shall endeavour to describe in detail the interesting nest which came out intact. There was a thin base of twigs, then approximately 10 cm of peat moss gathered from our wooded lot. To the left of centre was the small cup for the eggs and in this were feather scales and three cold eggs which I presume had been infertile. There can be as many as eight altogether.[2] [3] These eggs were light buffy in colour and were "blotched, lined and streaked with browns."[2] Two appeared to be identical but one was different in that it had "some scratches or fine hairlines."[3] In the left-hand corner of the nest was a clump of skunk fur, and in the right-hand corner was a small white wing of a bird. There were some other feathers and plant fibres arranged around the edges of the nest.

Although I was not able to be on hand to see the fledglings leave the nestbox, I feel that the nesting was a success due to the fact that, from my observations, the fledglings were well matured; there were feather scales in the nesting cup, and there were many small droppings on the top of the box and down the back of it, as well as on the wires which held the box to the tree.

I observed many nesting boxes during the summer of 1981 but no nesting gave me greater enjoyment and satisfaction than the Great Crested Flycatchers'.

[1] BANCROFT, JEAN. 1981. Flycatcher Family. Blue Jay 39(2):104-106.

[2] GODFREY, W. E. 1966. The birds of Canada. Nat. Mus. Canada Bull. 203. Ottawa. 428 pp.

[3] HARRISON, H. H. 1975. A field guide to birds' nests in the United States east of the Mississippi River. Houghton Mifflin, Boston. 257 pp.

1981 OWL BANDING ASSISTED BY SASKATCHEWAN POWER CORPORATION

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In May 1981 a routine air patrol of the electrical transmission tower line just east of Saskatoon turned up the highest great horned owl nest ever found in Saskatchewan.

The former hawk's nest on tower number 377 was home to a mother owl, one of her young, and an unhatched egg, when spotted by Peter Sielski, journeyman/lineman at the Queen Elizabeth power station in Saskatoon.

"We knew of the nest last year when it was empty, but seeing the owls there prompted us to call someone who knew about birds," Pete said in an interview in Saskatoon this summer.

The expert called in was radiologist Stuart Houston. Dr. Houston is highly regarded both among ornithologists and the farmers and Saskatchewan Power Corporation (SPC) workers he and his wife Mary meet on bird banding trips. He was excited to hear about the owls on the 36.5 m steel tower. "Great horned owls are not rare in Saskatchewan but their nests are usually not as high as the one on the power pole, 70 feet (21.3 m) up. That's the highest we've ever found," he said in a telephone interview in September.

"SPC is responsible for us finding some of these birds; the towers are convenient for nest building," said Dr. Houston. "No owl makes its own nest," he said. In this case a Red-tailed Hawk made the nest in 1979.

On 12 May the young owl was banded as was another young bird rescued from starvation after being found homeless in Manitoba, and placed in the nest to replace the infertile egg that was shipped to the Canadian Wildlife Service in Ottawa.

"We band owls to find out where they go and how long they live," said Houston. Young Great Horned Owls will travel up to 1600 km (1000 mi) southeast as far as Minnesota, Iowa and Nebraska during winter; the older owls tend to remain in their breeding territory. Many of the 407 owls banded this year by Houston and his assistants were found in the Battleford to Yorkton area of the province.

This was an early nesting year. "I banded my first young owl in 1981 on April 26 — the earliest banding in 1313 nests over more than 30 years," said Dr. Houston. When rabbits, mice, pocket gophers and other prey populations are high, nesting of owls will be frequent and successful. "A pair of birds were found approximately every 2 mi (5.2 km)," he said. "Owls are very successful birds if they have suitable nesting conditions."

The 12 May banding was accomplished by Stuart Houston and Bill Barrie, a pathologist also interested in birds. Pete Sielski took them up the tower, guiding them around or away from the overhead wires and the 15 insulators below the nest.

"The mother bird didn't make an attempt to fly at us," said Pete. "She sat close and chattered away, snapping her beak. A few times she would shriek and fly off the tower, then closer to the tower when her young were being handled for banding." The gloves worn to reduce contact with static electricity that builds up within the magnetic field created around the tower were also good protection from the owl beaks and claws.

The late afternoon banding session at 1800 that day was photographed by Pete and by Chris Escott, a planner in Saskatoon. "It was really one of the most exciting banding sessions I've been part of yet," said Chris.

The nest, now empty, remains on the bottom arm of the B2Q circuit side, or south side, of tower 377, home for an owl or two next year, perhaps.

Young Great Horned Owl. *Kathy Morck*

1981 SASKATCHEWAN CHRISTMAS BIRD COUNT

From Saturday, 19 December 1981 to Sunday, 3 January 1982, inclusive. Count area should be a circle, 24 km (15 miles) in diameter. This year, bird count forms will be sent to all compilers who submitted counts for Christmas 1980. Anyone else who wishes to send in a count, please write for a form to: Margaret Belcher, 2601 Winnipeg St., Regina, Sask. S4P 1H8.

Reports should be sent as soon as possible after the count (by 11 January 1982 at the latest) to the above address.

THE DISTRIBUTION OF MAMMALS IN SOUTHEASTERN ALBERTA AS INDICATED BY THE ANALYSIS OF OWL PELLETS*

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Although the food habits of most species of owls are fairly well documented in North America, few studies have been made on the diets of owls in Alberta. Rusch et al. studied Great Horned Owls at Rochester, Smith reported on the food habits of seven species of owls in the Edmonton area, and Boxall studied Snowy Owls in the Calgary area.[8 9 1] In 1980, large numbers of pellets from Great Horned Owls and Burrowing Owls were collected in southeastern Alberta. The present study was not undertaken to ascertain the food habits of these owls, but rather to obtain information on the distribution of the mammals that served as prey for these owls. Pearson and Pearson suggested the feasibility of using mammal remains found in owl pellets to determine the distribution of mammals in an area.[7] The pellets from Great Horned Owls and Burrowing Owls are good candidates for this type of study because both owls are opportunistic and catholic predators.[8 5]

Methods

Pellets were collected from various sites within the area bounded by Townships 2 and 25 and by Ranges 4 and 17 west of the fourth meridian, approximately 3225 square km (2016 square mi). The majority of the sites were from a much smaller area, however, approximately 873 square km (546 square mi). Great Horned Owl pellets were collected from 19 sites and Burrowing Owl pellets from 18 sites. The number of pellets per site ranged from one to approximately 100. No attempt was made to count the number of pellets from any site as frequently the pellets were in a broken condition. The Great Horned Owl pellets were collected from

Burrowing Owl. *Wayne Lynch*

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* Natural History Contribution No. 69

late winter to early spring 1980 and the Burrowing Owl pellets were collected in early summer 1980.

Pellets were broken apart and all bone and insect parts were sorted. Identification of bone material was made by direct comparison to a reference collection of skeletons. The lower jaws were most often used to identify the mammals and several bones, the humerus and tibiotarsus, were used to identify the birds. The number of individuals of any species was determined by matching pairs of elements of similar size. For mammals the lower jaws were used and for birds the humeri. This method is extremely crude and no doubt underestimates the number of individuals actually captured. No attempt was made to identify the species or remains of salamanders, gartersnakes, or insects recovered in pellets.

Results

Species, location, and number of individuals from the Great Horned Owl pellets are shown in Tables 1 and 2 and from the Burrowing Owl pellets in Tables 3 and 4.

The number of birds and mammals identified from the pellets of both owls was 1756. Of these 1122 individuals of 18 species of mammals and 123 individuals of 32 bird species were in the Great Horned Owl pellets and 483 individuals of 10 species of mammals and 30 individuals of 9 species of bird were from the Burrowing Owl pellets. In addition, insects and salamanders were found in pellets of both owls, but gartersnakes were found in the pellets of only burrowing owls.

The percentages of bird and mammal prey was calculated for both species of owls. Amphibians, reptiles, and insects constitute some portion of the diet of both species of owls. However, because of the difficulty in determining the number of individuals of amphibians, reptiles, and insects present in pellets, they have not been considered in the following calculations. The relative occurrence of prey in the Great Horned Owl pellets consisted of 90.1 percent mammals and 9.9 percent birds, and in

Table 1. NUMBER OF INDIVIDUAL MAMMALS IDENTIFIED IN THE PELLETS OF GREAT HORNED OWLS. LOCATION GIVEN AS SECTION, TOWNSHIP, RANGE, WEST 4th MERIDIAN.

Species / *Location*	35-3-9-4	23-3-12-4	24-3-12-4	21-4-8-4	19-4-9-4	24-4-10-4	3-4-11-4	12-4-13-4	12-4-14-4	14-5-6-4	9-5-9-4	14-5-9-4	17-5-9-4	36-6-9-4	4-6-10-4	15-6-17-4	25-8-12-4	15-9-10-4	31-12-4-4
Masked Shrew			9										6	2	8		2		2
Hayden's Shrew		1	12				3												3
Vagrant Shrew			2														1		
Bat																	1		
Nuttall's Cottontail															1	4	5		1
White-tailed Jack Rabbit	1							1		6	1			1	1			1	
Richardson's Ground Squirrel	1									3	1			1			1		
Northern Pocket Gopher															1			1	2
Olive-backed Pocket Mouse				1					1	2						1	16	26	1
Deer Mouse	1	24	90	13	3	1	22	12	43	5		4	43	68	67	5	195	8	41
Northern Grasshopper Mouse		1	1						1				1	3			7	6	
Meadow Vole		6	19	1			4	12	13				3	5	15	4	44	12	24
Long-tailed Vole													2						
Sagebrush Vole		5	20	1			1		3	2			12	12	26	2	20	1	32
Muskrat										2									
Ermine		1																	1
Least Weasel		1						3	1								3		5
Long-tailed Weasel													2				2	1	

Table 2. NUMBER OF INDIVIDUAL BIRDS FOUND IN THE PELLETS OF GREAT HORNED OWLS. NOTE: X INDICATES PRESENCE OF ANIMAL AT THAT LOCATION AS INDICATED BY REMAINS FOUND IN PELLETS. LOCATION GIVEN AS SECTION, TOWNSHIP, RANGE, WEST 4th MERIDIAN.

Species / *Location*	35-3-9-4	23-3-12-4	24-3-12-4	21-4-8-4	24-4-10-4	3-4-11-4	12-4-13-4	12-4-14-4	14-5-6-4	14-5-9-4	17-5-9-4	36-6-9-4	4-6-10-4	15-6-17-4	25-8-12-4	15-9-10-4	31-12-4-4
Horned Grebe															1		
Eared Grebe			1												1		
Mallard			1	1			1								1		
Gadwall							2		1								
Pintail							1										
Green-winged Teal							1										
Blue-winged Teal			1				2	2									
Shoveler							2	1	1		1						
Redhead									1								
Lesser Scaup															1		
Marsh Hawk													1				
Sharp-tailed Grouse															2		
Gray Partridge	1		1				4						1		4		3
American Coot			1				2	1	1					1	5		
Killdeer															1		
Willet															1		
Greater Yellowlegs															1		
Lesser Yellowlegs							1										
Rock Dove	1						1								2		
Burrowing Owl			1														
Short-eared Owl								1				1					
Horned Lark		1					1	2	1				1		4		
Barn Swallow							2	2									
Black-billed Magpie				1									1		2		
Common Crow							1										
Black-capped Chickadee									1								
Mountain Bluebird															1		
House Sparrow			1		3		2	4							1		
Red-winged Blackbird								1	1								
Common Grackle														1			
Savannah Sparrow									1								
Clay-colored Sparrow									1								
Unidentified Bird	3	1				1	8	1		1	1	3	1		3		
Salamander									X						X	X	
Insects									X						X	X	

Table 3. NUMBER OF INDIVIDUAL MAMMALS IDENTIFIED IN THE PELLETS OF BURROWING OWLS. LOCATION GIVEN AS SECTION, TOWNSHIP, RANGE, WEST 4th MERIDIAN.

Species / *Location*	31-2-12-4	20-5-8-4	11-5-14-4	22-6-9-4	23-6-10-4	-7-10-4	28-8-10-4	-9-14-4	15-10-10-4	27-10-10-4	-11-11-4	-12-12-4	-13-11-4	-14-9-4	5-22-12-4	32-24-12-4	11-25-14-4	12-25-15-4
Masked Shrew			8		1				1				4			1	1	
Hayden's Shrew			9										6			2	1	
Vagrant Shrew									1									
Richardson's Ground Squirrel		1			1								1	1		1	1	
Northern Pocket Gopher		1															2	
Olive-backed Pocket Mouse	3	1	4		5		9		23	3								
Deer Mouse	7	1	24		8	1	3		39		4		11	10	3	8	2	10
Northern Grasshopper Mouse					1				3									
Meadow Vole	9		35	3	8		8		18		2	3	20	5		3	4	2
Sagebrush Vole	4		14	2	25			1	16		8	3	22	2		9	16	14

Table 4. NUMBER OF INDIVIDUAL BIRDS FOUND IN THE PELLETS OF BURROWING OWLS. NOTE: X INDICATES PRESENCE OF ANIMAL AT THAT LOCATION AS INDICATED BY REMAINS FOUND IN PELLETS. LOCATION GIVEN AS SECTION, TOWNSHIP, RANGE, WEST 4th MERIDIAN.

Species / *Location*	*31-2-12-4*	*20-5-8-4*	*11-5-14-4*	*23-6-10-4*	*-7-10-4*	*28-8-10-4*	*15-10-10-4*	*27-10-10-4*	*-11-11-4*	*-12-12-4*	*13-11-4*	*5-22-12-4*	*32-24-12-4*	*11-25-14-4*	*12-25-15-4*	*-14-9-4*
Willet											1					
Burrowing Owl						1	1									
Horned Lark							1				1					1
Black-capped Chickadee																1
Rock Wren											1					
Mountain Bluebird				1												
Rufous-sided Towhee											1					
Savannah Sparrow											1					
White-throated Sparrow											1					1
Unidentified Bird	2	1	4						1	1	1		1	1	3	2
Gartersnake		X		X												
Salamander	X	X	X	X		X										
Insects	X	X	X	X	X	X	X	X		X	X	X	X	X	X	

the burrowing owl pellets 94.1 percent mammals and 5.9 percent birds.

Annotated Mammal List

MASKED SHREW (*Sorex clinereus*) Both species of owls preyed on this shrew. It is widely distributed throughout the area and is locally abundant.

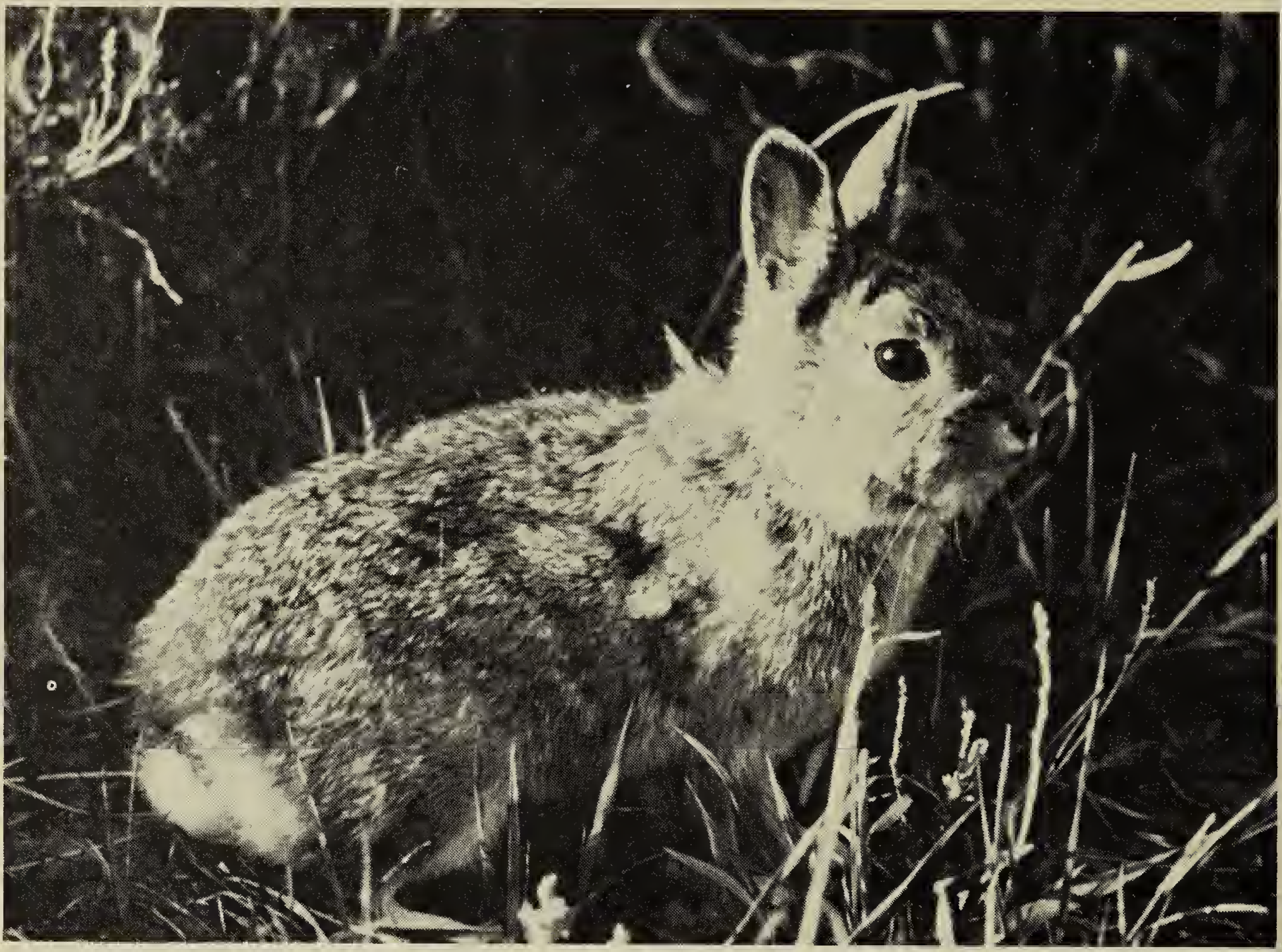
HAYDEN'S SHREW (*Sorex haydeni*) Van Zyll de Jong found that two forms of the common shrew occurred in southern Alberta.[11] They are sufficiently different to be classified as separate species. One method of separating them was on the basis of pigmentation on the anterior toothrow of the lower jaw. If *Sorex haydeni* is a valid species and pigmentation is a reliable method for differentiating it from *Sorex cinereus*, then the records reported here provide additional distributional information on this shrew.

Both species of owls preyed on this shrew. It is evidently widely distributed and locally common. As Van Zyll de Jong pointed out this species occurs sympatrically with *Sorex cinereus*.[11]

DUSKY SHREW (*Sorex monticolus*) This shrew was found in Great Horned Owl pellets from two localities and burrowing owl pellets from one locality. The small number of individuals taken and their wide distribution indicates that this species is not common on the grasslands of Alberta.

BAT (possibly *Myotis volans*) A proximal end of a humerus and a left upper cheek toothrow were recovered from a Great Horned Owl pellet. This is the first evidence of owl predation on bats in Alberta. On direct comparison with skulls of Little Brown Bat, *Myotis lucifugus*, and Long-legged Bat, *Myotis volans*, the teeth appeared to match those of the Long-legged Bat more closely.

NUTTALL'S COTTONTAIL (*Sylvilagus nuttallii*) This species was found only in Great Horned Owl pellets. Examples were found at four widely scattered sites. At two of these sites remains of four and five individuals were obtained while single individuals were recovered at the other two sites. Collectors have found cottontails to be locally abundant in southern Alberta.[10] The number of cottontails found in this study may reflect this or it may indicate that the owls at two sites were showing a preference for cottontails, as had been reported in the literature.[6]



Nuttall's Cottontail. *Gary W. Seib*

WHITE-TAILED JACK RABBIT (*Lepus townsendii*) Remains of jack rabbits were found in Great Horned Owl pellets from seven widely separated sites. Six individuals, all appearing to be immature, were recovered from one site. In north central Alberta Rusch et al. found that Snowshoe Hares (*Lepus americanus*) are important food items in the diet of Great Horned Owls.[8] What role jack rabbits assume in the diet of these birds in southern Alberta remains to be studied. The distribution of pellets in which remains of jack rabbits were found reflects the wide distribution of this hare in southern Alberta.

RICHARDSON'S GROUND SQUIRREL (*Spermophilus richardsonii*) Remains were found in pellets from five Great Horned Owl and six Burrowing Owl sampling localities. It is not known whether the Burrowing Owls were preying on these ground squirrels or were eating them as carrion. Coulombe suggested that the remains of a ground squirrel found at a Burrowing Owl roost in California represented carrion.[2] On the other hand, Longhurst included Thirteen-lined Ground Squirrel *Spermophilus tridecemlineatus*, in the food items of Burrowing Owls in Colorado without comment.[5] Until further studies are done on the food habits of Burrowing Owls in Alberta it is not possible to make any firm statement on this subject. However, the frequency of ground squirrels in the pellets of Burrowing Owls would seem to indicate predation rather than scavenging.

On the basis of the evidence apparent in this study this ground squirrel is widely distributed throughout the area.

NORTHERN POCKET GOPHER (*Thomomys talpoides*) Pocket gophers were not important items in the diet of either owl species in southern Alberta. Four individuals from three areas and three individuals from two other areas were found in pellets of Great Horned Owls and Burrowing Owls respectively.

Pocket gophers are not common in southern Alberta but are perhaps widely distributed as this study may indicate.

OLIVE-BACKED POCKET MOUSE (*Perognathus fasciatus*) Pocket mice are widely distributed and are locally common in southeastern Alberta. They were eaten by both species of owls but form a larger portion of the rodent component of the diet of Burrowing Owls (Table 7) than Great Horned Owls.

DEER MOUSE (*Peromyscus maniculatus*) On the basis of the number of individuals counted in pellets and the number of localities in which this species was found, it is widely distributed and common in southern Alberta. It is a frequent food item in the diet of Great Horned Owls and the second most frequent prey species in the Burrowing Owl diet.

NORTHERN GRASSHOPPER MOUSE (*Onychomys leucogaster*) Four individuals were recovered from Burrowing Owl pellets from two localities and 20 individuals from Great Horned Owl pellets from seven localities. These mice were not important food items for either species of owls. These mice are widely distributed and may be locally common.

MEADOW VOLE (*Microtus pennsylvanicus*) This species is common and widely distributed in the study area. It was used extensively by both species of owls.

LONG-TAILED VOLE (*Microtus longicaudus*) This is not a common or widely distributed species in southern Alberta. Two individuals from one Great Horned Owl sample were identified.

SAGEBRUSH VOLE (*Lagurus curtatus*) This vole is widely distributed and common in the area. It is the principal prey species for Burrowing Owls and third in importance in the diet of Great Horned Owls.

MUSKRAT (*Ondatra zibethicus*) Two individuals from one Great Horned Owl sample were recovered. What this indicates with regard to the distribution and abundance is difficult to assess. Three Great Horned Owl samples contained birds that can be classified as water or water associated species. Thus, several individual owls hunted in a habitat that could contain muskrats but for reasons unknown did not use any muskrats as food. Rusch et al. indicated that Great Horned Owls at Rochester preyed on muskrats.[8]

ERMINE (*Mustela erminea*) On the basis of individuals taken and samples from which individuals were recovered, this weasel is widely distributed and not common in southeastern Alberta. In surveying a number of studies on the diet of Great Horned Owls, only Rusch et al. indicated that this weasel was preyed on.[8] Hall cited a report of a Snowy Owl killing an ermine.[3]

Muskrat.

Juhachi Asai

LEAST WEASEL (*Mustela nivalis*) Thirteen individuals were identified in five widely scattered Great Horned Owl samples. On this basis, these weasels are widely distributed and locally common. Hall[3] lists the Great Horned Owl as an "enemy" of this weasel and cites a study in which remains of a Least Weasel were recovered from a Great Horned Owl pellet. Least Weasels are also preyed upon by Snowy Owls.[1]

LONG-TAILED WEASEL (*Mustela frenata*) Five individuals from three samples of Great Horned Owl pellets were identified. Hall does not include owls in his list of predators for this weasel and cites a study done by Pearson and Pearson that states that (weasels) "were never eaten by owls."[3] [7] Boxall and Rusch et al. include this weasel in the diets of Snowy Owls and Great Horned Owls respectively.[1] [8] The evidence found in this study would indicate that these weasels are not preyed on extensively by owls in southern Alberta.

DISCUSSION

Great Horned Owls preyed upon insects and amphibians less frequently than did Burrowing Owls. Insect and salamander remains were found in pellets from only three of the 19 Great Horned Owl localities, whereas insects were found in 14 of 18 Burrowing Owl localities and salamanders in six of these 18 sites (Table 5).

The number of species of mammals that are used as food by both species of owls is extensive. The only limiting factor for preying on an animal would seem to be the size of the prey item in relation to the size of the owl.[4] By using the ranges of mammals as given by Soper[10] and mammal size, I identified 28 species as potential prey for the Great Horned Owl and 22 species as potential prey for the Burrowing Owl. If bats are eliminated as "normal" prey, the number of species available is 22 and 16 respectively. Using these latter figures, Great Horned Owls use 77 percent of the available mammal species and Burrowing Owls use 62.5 percent. Rodents make up the greatest percentage of mammalian orders used by both owls (Table 6). Deer Mice and Grasshopper Mice together are the most important prey species items for Great Horned Owls, while voles are most important for Burrowing Owls (Table 7).

Great Horned Owl

In other studies conducted on the food habits of Great Horned Owls, leporids (rabbits and hares) are considered to be the principal prey species.[6] Rusch et al. used biomass of prey to indicate what mammal groups constitute the most important elements in the diet of Great Horned Owls.[8] They estimated that the daily food requirement for an adult Great Horned Owl was 144 grams but that a daily ration of 310 grams biomass was consumed. Boxall pointed out that when Snowy Owls prey on White-tailed Jack Rabbits they probably ate only one meal from the carcass due to freezing temperatures.[1] Assuming that this is true for Great Horned Owls as well, and using a daily ration figure of 310 grams as the mass of food consumed from any animal whose weight is greater than 310 grams, a different picture emerges with respect to the various mammalian groups in the diet of this species. Using this method, rodents comprise 77.5 percent of the total biomass of prey and lagomorphs 17.8 percent. These figures may reflect more accurately the importance of these two groups of mammals in the diet of Great Horned Owls in southern Alberta.

Burrowing Owl

No comparable studies have been made on the daily nutritional requirements for Burrowing Owls. In Colorado Marti found that Burrowing Owls were limited in the size of prey they took but within the limitations of size their diet was variable.[6] This observation is confirmed in this study as well. It is interesting to note that in Marti's study jack rabbits, a large duck, and a domestic cat were consumed by Burrowing Owls. They were, however, considered as carrion rather than prey. Marti suggested that it is more economical for Burrowing Owls to use insects as food because of their abundance and ease of capture. This may be true in Alberta as well, but is not evident by the analysis of pellets. One problem with Burrowing Owl pellets is that if they are composed principally of insect parts they disintegrate faster than pellets comprised principally of vertebrate matter.[6] This could easily bias the results of pellet analysis more strongly in favor of vertebrates. I made no attempt to quantify the insect prey used by these owls, but under any circumstances, the biomass of vertebrates consumed would be much greater than the invertebrates.

The mammalian component in the diet of Burrowing Owls was larger both in numbers and diversity of species in comparison to other vertebrate prey items (Tables 3 and 4). Rodents were by far the most important mammal order utilized as prey (Table 6). Voles form the largest component of this group (Table 7).

Table 5. NUMBER OF SAMPLE SITES FROM WHICH PREY ITEMS WERE IDENTIFIED

	Great Horned Owl	*Burrowing Owl*
Mammal	19	18
Bird	17	13
Reptile	0	2
Salamander	3	6
Insect	3	14

Table 6. PERCENT OF MAMMAL ORDERS IN DIET

	Great Horned Owl	*Burrowing Owl*
Insectivora	4.5	6.9
Chiroptera	Tr.	—
Lagomorpha	2.0	—
Rodentia	91.7	93.1
Carniviora	1.8	—

Table 7. PERCENT OF RODENTS IN DIET

	Great Horned Owl	*Burrowing Owl*
Large Rodents (ground squirrels, pocket gophers, muskrats)	1.3	2.0
Pocket Mouse	4.7	10.7
Deer Mouse — Grasshopper Mouse	64.8	30.1
Voles	29.3	57.1

Conclusions

The analysis of pellets from Great Horned Owls and Burrowing Owls is useful in obtaining an understanding of the distribution of small mammals in an area. In this study it was possible to "fill in gaps" in the knowledge of the distribution of many of the small mammals of southeastern Alberta. This study also showed that rodents are the principal mammal group preyed on by these owls.

I wish to thank D. Schowalter, formerly of Alberta Fish and Wildlife Division, for collecting these owl pellets and for making them available to me.

[1]BOXALL, P. C. 1980. Aspects of the behavioural ecology of wintering snowy owls (*Nyctea scandia*). Unpublished MSc. Thesis, University of Calgary. 213 pp.

[2]COULOMBE, H. N. 1971. Behavior and population ecology of the Burrowing Owl, *Speotyto cunicularia*, in the Imperial Valley of California. Condor 73:162-176.

[3]HALL, E. R. 1951. American weasels. University of Kansas, Publ. Volume 4:1-466.

[4]KORSCHGEN, L. J. and H. B. STUART. 1972. Twenty years of avian predator — small mammal relationships in Missouri. Jour. Wildl. Mgmt. 36:269-282.

[5]LONGHURST, W. M. 1942. The summer food of Burrowing Owls in Costilla County, Colorado. Condor 44:281-282.

[6]MARTI, C. D. 1974. Feeding ecology of four sympatric owls. Condor 76:45-61.

[7]PEARSON, O. P. and A. K. Pearson. 1947. Owl predation in Pennsylvania, with notes on the small mammals of Delaware County. Jour. Mammal. 28:137-147.

[8]RUSCH, D. H., E. C. MESLOW, P. D. Doerr and L. B. KEITH. 1972. Response of Great Horned Owl populations to changing prey densities. Jour. Wildl. Mgmt. 36:282-296.

[9]SMITH, H. C. 1976. Comparison of food items found in pellets of seven species of owls. Edmonton Naturalist 4:36-38.

[10]SOPER, J. D. 1964. Mammals of Alberta. Queens Printer, Edmonton. 402 pp.

[11]VAN ZYLL de JONG, C. G. 1980. Systematic relationships of woodland and prairie forms of the Common Shrew, *Sorex cinereus cinereus* and *S. c. haydeni* Baird, in the Canadian prairie provinces. Jour. Mammal. 61:66-75.

White-tailed Jack Rabbit. *Lorne Scott*

CHIPMUNKS AND SQUIRRELS EATING BEETLE LARVAE AT THE PAS, MANITOBA

WALTER KRIVDA, Box 864, The Pas, Manitoba. R9A 1K8

Recently Phil Reader of Reader's Lake mentioned to me that both chipmunks and squirrels will eat beetle larvae.

Phil Reader runs a small home saw mill, cutting timber sized trees into boards.

Both squirrels and chipmunks will run along the boards, just cut, exposing larvae. They extract them and eat them immediately. They become so intent at this that they disregard the roar of the saw, the flying sawdust and the presence of people! Some almost touch the whirring saw blade in their expectancy of the tasty morsels! Evidently, they have a need for protein in their diets.

The larva found in the spruce timber is that of the "large horned beetle," *Monochamus notatus*. The adult is on the wing in July. Various other larvae occur of the family Buprestidae. The largest larvae are however of *Monochamus*. These are particularly relished. These larvae are of different sizes and ages. The generations overlap producing larvae of different sizes. All are eaten rapidly and without discrimination! Both the chipmunks and squirrels come running when they hear the machinery start up — surely a Pavlovian response!

Least Chipmunk. *R. E. Gehlert*

A MILD WINTER AND WHITE-TAILED DEER IN SASKATCHEWAN

HUGH HUNT, Dept. of Tourism and Renewable Resources, 2602 8th Street East, Saskatoon, Saskatchewan, S7H 0V7, and GARY WOBESER, Dept. of Veterinary Pathology, Western College of Veterinary Medicine, University of Saskatchewan. S7N 0W0

As part of an ongoing investigation of winter mortality of wildlife in Saskatchewan, conducted jointly by the Wildlife Branch of the Department of Tourism and Renewable Resources and the Department of Veterinary Pathology of the Western College of Veterinary Medicine, winter mortality of white-tailed deer was again monitored in the very mild 1980-1981 winter. Subjectively, the 1980-1981 winter can be described as very mild with above average mean monthly temperatures, snowpack below average in most of agricultural Saskatchewan, a mild preceding autumn, and a shorter than average period of snow cover. White-tailed deer found dead by DTRR field staff during winter were examined to measure their physical condition and to determine the factors causing and/or contributing to their death.

A total of 61 white-tailed deer was submitted for necropsy, notably higher than the 35 deer submitted the previous winter, also judged to be mild, but still markedly less than the totals submitted in severe winters earlier in the study.[1] However, as in the mild 1979-1980 winter, most of the specimens (91%) died as a result of collisions with automobiles (89%) or trains (2%) (Table 1). Shooting, a bacterial infection, a trapper's snare, and predation by coyotes each accounted for one death. The deer was only maimed in the predator attack and was subsequently shot. One old female in poor bodily condition died after running into a fence and one deer died of shock following rupture of muscles in its hind limbs probably due to slipping on ice. As was found in the 1979-1980 winter, mortality

Deer. *Lorne Scott*

Table 1. CAUSE OF DEATH OF WHITE-TAILED DEER SPECIMENS OBTAINED DURING THE 1980-1981 WINTER.

Mortality Factor	*No. of Deer*
Automobile Collision	54
Train Collision	1
Predation	1
Bacterial Infection	1
Snare	1
Shock	1
Trauma	1
Shooting	1
Total	61

caused by predation and starvation in the very mild 1980-1981 winter was much less than would be expected in a more severe winter with deeper snow.[1]

Body condition estimates for each specimen, based on the amount of fat remaining in the carcass at the time of death, indicated the adult deer were in good body condition throughout the 1980-1981 winter. Most fawn deer were able to maintain good body condition even into April in comparison to the mild 1979-1980 winter when fawns were able to maintain good body condition only into March. In more severe winters, fawn body condition begins to deteriorate much earlier than this.

Gross examination of rumen contents to describe winter diets revealed that cereal grains were the principal food of almost two-thirds (63%) of the 1980-1981 deer with woody browse the principal food of the remainder of the deer. In contrast, deer diets in the 1979-1980 winter, characterized by somewhat greater snow pack than in 1980-1981, were largely woody browse whereas in more severe winters, cereal grains and tame forages were important deer foods.[1] These results suggest that when snow cover is minimal (1980-1981), deer use the highly nutritious cereal grains due to their increased relative availability but when snow covers these foods in a mild winter (1979-1980), deer eat woody browse to a large extent. During mild winters, deer are generally in good nutritional status and do not need to actively search for nutritious cereal grains for food. Woody browse diets are adequate. In severe winters, physiologically stressed deer may seek cereal grains and tame forages due to their higher nutritional value even though their relative availability is reduced by the snow cover.

TABLE 2. REPRODUCTIVE SUCCESS OF FEMALE WHITE-TAILED DEER IN THE 1980-1981 WINTER.

Age Category	*No.*	*No. Pregnant*	*No. With One Fetus*	*No. With Twins*	*Pregnant But No Fetus Count*	*No. With One Dead Fetus*
Fawn	9	2 (22%)	2	0	0	0
Yearling	6	6 (100%)	4	0	2	2
Adult	16	15 (93%)	4	9	2	1
Total	31	23 (74%)	10	9	4	3

Reproductive success of the does submitted (Table 2) was somewhat less than is expected for Saskatchewan whitetails. Although most females older than fawns were pregnant (21/22), the average number of viable fetuses per doe (1.35) is lower than has been observed in other years. The proportion of fawns pregnant (22%) approximates the rate observed during severe winters and is markedly lower than the 60% fawn pregnancy in 1979-1980.[1] The absence of twin fetuses carried by yearling females and triplets in adult females, and 3 instances of fetal mummification (one fetus in each of 2 yearlings and 1 adult) also point to less than average reproductive success. Although these data are limited, they may suggest reproductive success of the submitted females was lowered by some environmental factors. Possibly the drought experienced in Saskatchewan in 1980 resulted in whitetail females entering the breeding season in less than optimum condition, consequently decreasing reproductive success. Another explanation for this phenomenon may be that the specimens submitted represent less fit individuals in the population (more susceptible to all mortality factors, even automobile collisions) and are not capable of the reproductive success expected of Saskatchewan white-tailed deer. It may be that a combination of both these explanations is reponsible for the low reproductive success observed in the 1980-1981 sample.

In summary, it appears the very mild 1980-1981 winter was an easy winter for white-tailed deer in Saskatchewan and the winter's limited snow cover enabled deer to take advantage of waste cereal grain and tame forage as their principal food. Lower than expected reproductive success may reflect the drought experienced in Saskatchewan in 1980.

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[1] HUNT, H., G. WOBESER, and F. LEIGHTON. 1980. Whitetails and the 1979-1980 winter in Saskatchewan. Blue Jay 38(4):252-253.

1981 SASKATCHEWAN CHRISTMAS MAMMAL COUNT

Reports of mammals seen during bird counts will be compiled again this year. When on Christmas Bird Counts please note the number of each species of mammal seen, and note species whose tracks you can positively identify.

Send mammal counts with your bird counts by 11 January 1982 at the latest to Margaret Belcher, 2601 Winnipeg Street, Regina, Saskatchewan. S4P 1H8.

Winter. *Ron Jensen.*

JUNIOR NATURALISTS

This month we are lucky enough to have another letter from a junior. Thank-you Fred — maybe you can get some of your friends to write us also about their nature and outdoors experiences.

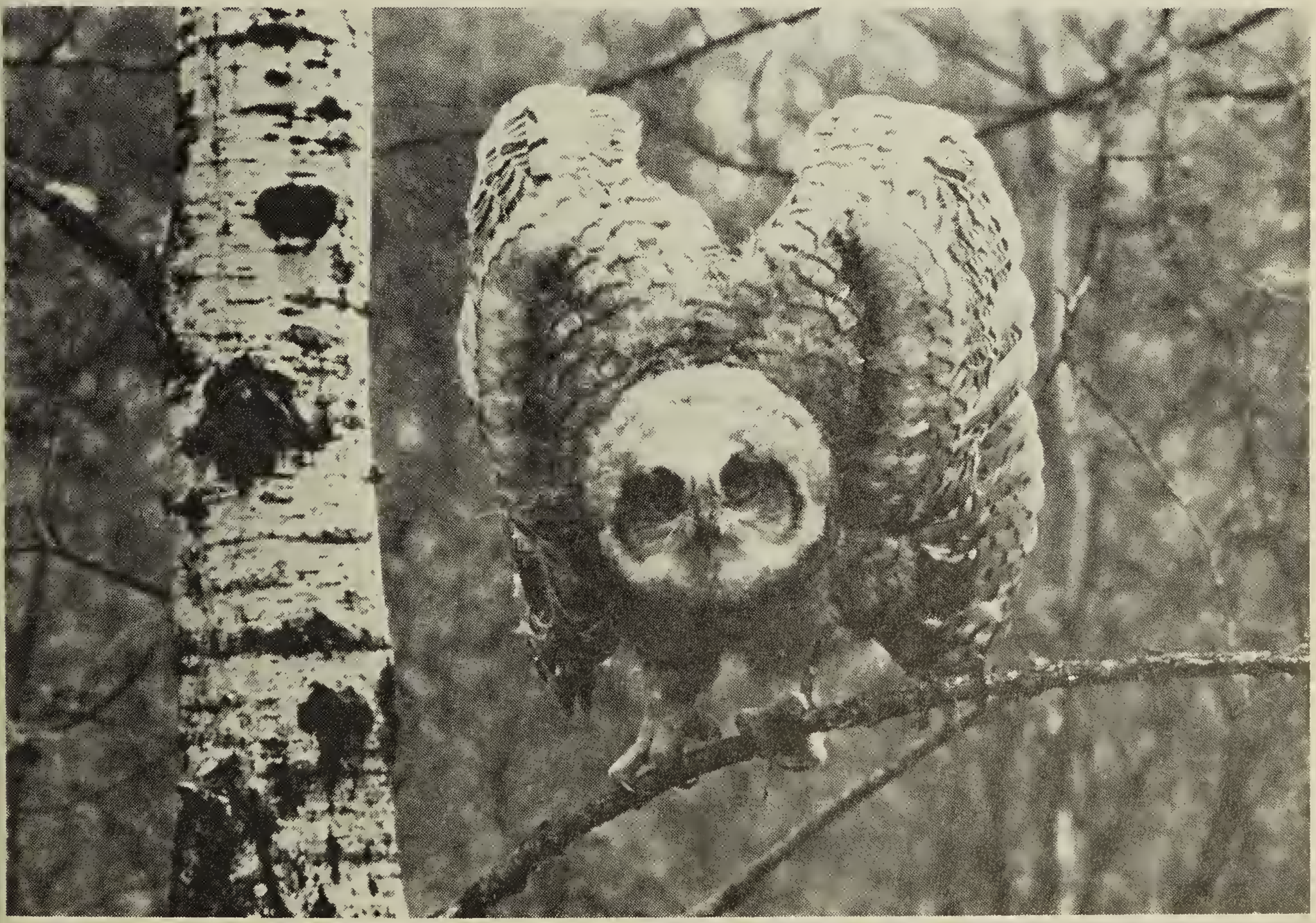
AT McBRIDE LAKE

When I was at Lake McBride I saw two of your associates. It was about 10 o'clock, I was walking on the beach and I came about two feet in front of a Beaver on the beach. It was dark so he couldn't see me. About an hour before I saw the Beaver out 5 feet in the water.

The next morning Dale and Paule Hjertaas and I went on a canoe trip. We saw Beaver, Muskrats, ducks, crayfish and other birds and animals. They also taught me some things about canoeing. I enjoyed it with them! Thank-you Dale and Paule. — *Fred Kakish*, Box 211, Foam Lake, Sask. S0A 1A0

PHOTO CONTEST RESULTS

We did get some entries in the junior photo contest. We chose two winners who will both receive a $10.00 gift certificate from the Blue Jay Bookshop. Here are the pictures. Maybe we could get a short story from the winners about these pictures in the next issue of the Blue Jay.



Young Great Horned Owl. *Sean Morrissey*

Calla Lily. *Nigel Caulkett*

ENERGY

A topic suitable for the long winter season is energy. How to conserve it, mainly. Now, maybe you will tell me that you have heard a lot about it already but, have you ever thought about energy as it relates to the natural world?

Energy is what keeps everything and everyone going. If you don't eat enough, you are hungry and tired, you have less energy. If you run a lot, you burn energy. For us, it does not matter as much as for animals outside because, when we get home, we always have enough high energy food to eat to build back that energy. And also, we are warm in our houses, so we don't have to spend energy shivering or being constantly on the go just to keep warm.

In winter, energy conservation is important for every animal too.

Ground Squirrels and Prairie Dogs hibernate in their tunnels under ground. The temperature is never as low in the ground as outside, so they don't have to spend as much energy keeping warm. Also, hibernating means being in a torpor, with lowered body processes. It's like living in slow motion. If you keep one as a pet and don't let it hibernate, it will die much younger.

Deer, from spring to fall, eat with the purpose of putting on fat reserves that will help them go through the winter. The winter food is energy poor so, by the next spring, the deer will have used up all their fat reserves and, if the winter has been long and hard, be in poor condition. If a deer is disturbed and tracked by a snowmobile, it will run to get away, which will use 6 to 11 times more energy than normal. If it happens too often, this deer may die before the end of winter, of exhaustion and starvation.

There should be here a warning for naturalists as well. In England, birdwatchers came in such numbers to see a rare bird that the poor animal dropped dead before their eyes, of harassment and exhaustion!

Another example of energy conservation is the arctic poppy. In the short summer of the tundra, it needs extra help to produce its seeds. It is actually helping itself by always turning to face the sun. Also, the area surrounded by the petals is black, which absorbs more heat. The temperature there can reach 10.5°F higher than air temperature so the seeds get a boost to mature.

Finally, a most unusual finding. Some insects actually make their own antifreeze, glycol, so they can spend the winter unharmed by frost!

What about the role of furs, feathers, cover on animal survival? Why do some trees and smaller plants survive the winter here while ones from a warmer region cannot?

I am sure that you can think of other ways animals and plants conserve energy. Why don't you write the *Blue Jay* about it?

See you in the next newsletter with nature crosswords and quizzes. — *Paule B. Hjertaas*, 919 Cook Crescent, Regina, Saskatchewan. S4X 2L9

ohemian Waxwing. *Kathy Morck*

NATURE LIBRARY

THE ORCHIDS OF THE CYPRESS HILLS

ROBERT M. FISHER. diagrams & 2 pp. colour plates. O. Pall, 1612-46 St. N.W. Calgary T3B 1A9. 33 pp. 1980. $4.95.

The Orchids of the Cypress Hills has been written to introduce this family of vascular plants and to explain why the habitats of these species need protection. The author describes 14 orchid species and illustrates each with clear line drawings. The two center pages show 18 colour photographs illustrating close-ups or habitats of most of the species described.

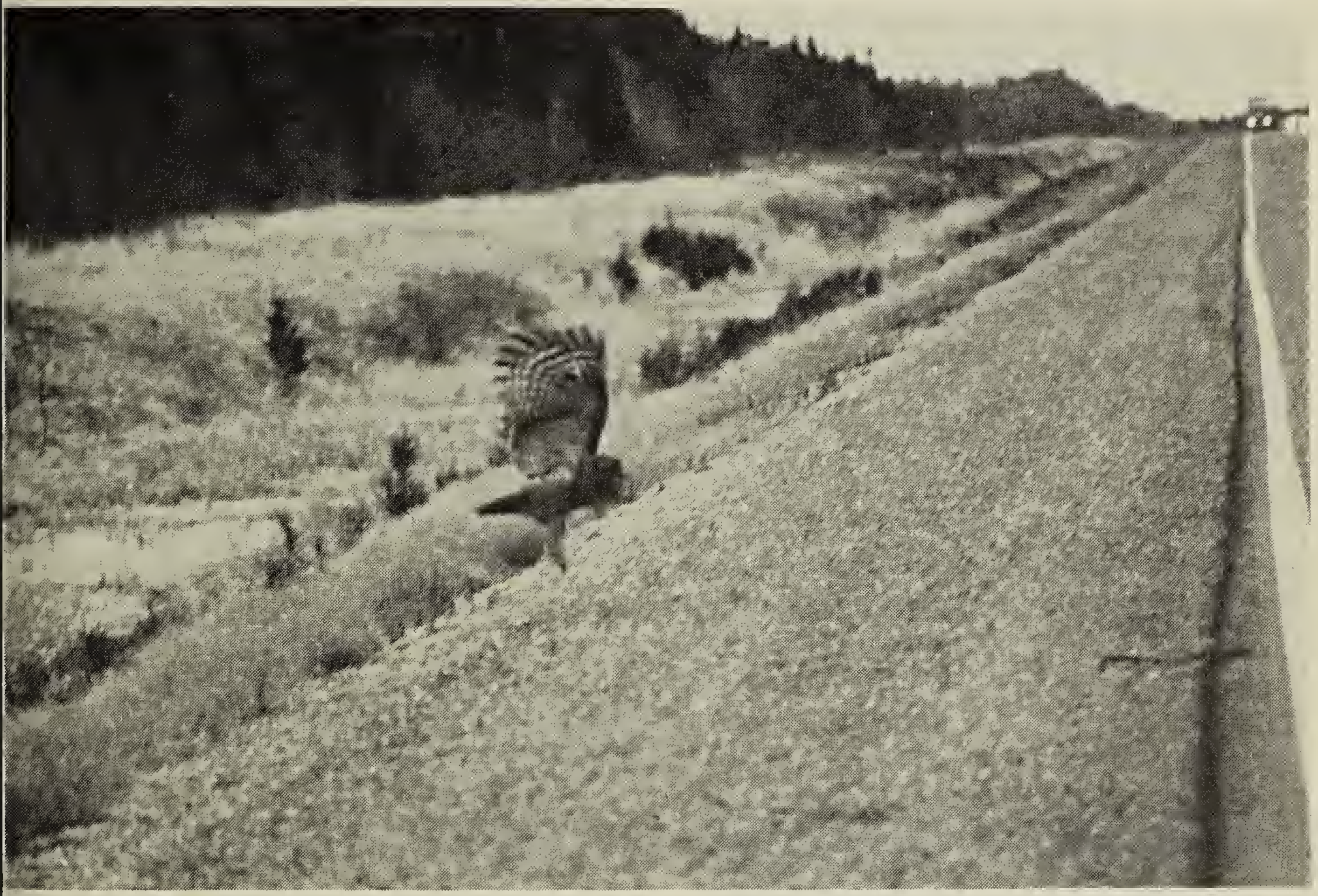
The introduction locates and describes the uniqueness of the Cypress Hills and then comments on the orchid family and explains how these fascinating plants add to the beauty and value of the Cypress Hills. Although some of the orchid species are fairly common and abundant others are very rare. The author explains why these species are so "susceptible to man-made habitat changes" and makes a plea for the preservation of these fragile flowers by saving "their habitats from careless destruction". The introduction includes simple keys which may be used to identify most of the orchids occurring anywhere in Alberta and Saskatchewan.

The booklet describes 14 species and lists a 15th in a footnote in which the additional species *Goodyera repens* var. *ophioides*, Lesser Rattlesnake Plantain, is distinguished from G. *oblongifolia*, Menzies' Rattlesnake Plantain. When I was in the Saskatchewan Cypress Hills with a botany group in 1981 we found *Cypripedium calceolus*, Yellow Lady's Slipper, which would be the 16th orchid species in the Cypress Hills. Since Fisher did not include the species I turned to the definitive article on *Cypripedium* in Saskatchewan by V. L. Harms, *Blue Jay*, June, 1974. The distribution map does not locate *C. calceolus* in the Cypress Hills and in the text Harms states that the species has not yet been collected in southwestern Saskatchewan. We did not realize that we were adding a new species to the orchids of the Cypress Hills but several good voucher photographs were taken.

The booklet, *The Orchids of the Cypress Hills*, is simply written and clearly illustrated. It makes identification of these fascinating plants really easy and it will go a long way toward creating a greater understanding and appreciation of our native flora. — Reviewed by *G. F. Ledingham*, University of Regina Herbarium, Regina, Saskatchewan.

Calypso or Venus' Slipper. *Mabel Miller*

LETTERS



Great Gray Owl. Eric Feilberg

GREAT GRAY OWL

This photograph was taken in late March on the west bound Trans-Canada Highway near East Braintree, Manitoba, which is located in south-eastern Manitoba.

The owls can often be seen on the shoulder of the highway. As they fly up they can easily be hit by traffic. They seem to be unable to comprehend the danger so we have to watch out for them. — *Eric Haakon Feilberg*, East Braintree, Manitoba. R0E 0L0

BAT, RACCOON AND BRANT OBSERVATIONS

I am enclosing some observations which would be interesting to nature enthusiasts.

While I was opening fields in early August, a bat flew out of one of my field shelterbelts and flew in a zig zag fashion to the shelterbelt on the other side of the field some 90 m away. When it was about half way, I noticed a Kestrel coming toward it in pursuit; when the bat was some 6 m from the trees and 6 m above them and the little falcon somewhat the same distance from the bat but closing in fast, the bat with a sudden burst of speed dove straight into the trees, changing its erratic flight abruptly. The falcon too, dove among the trees but came out on the other side with no prey. I did not see the bat again. This was approximately 4 o'clock in the afternoon. This I believe would show that bats use their power of sight more than we realize.

On the night of 2 October 1981 a raccoon was killed on Highway 4 some 21 km north of Swift Current.

On 3 October 1981 while observing flocks of Canada, White-fronted and Snow Geese passing from feeding grounds on sw 20-20-16-W3 over nw 17-20-16-W3 the adjoining quarter, to Lake Diefenbaker I saw a Brant and as it was very dark, almost black, I would say a Black Brant. I was directly under this flock and I would estimate their height at 30 m; I also had binoculars. — *Sig Jordheim*, White Bear, Sask. S0L 3L0

SCARLET TANAGER AT TURTLE LAKE

Late in the afternoon of 6 June 1981, I was doing one of my sporadic bird counts of species and nests on the east side of Turtle Lake where I have my summer home. I had recorded 94 species and 7 nests along the 4 km of shoreline nearest my home and was returning home when a "flash of red" landed in a thicket in front of me. The bird was in a stand of willow, dogwood and birch about 5 m away from me.

A small patch of yellowish feathers was visible on the left side of the bird's breast. I immediately recognized it as a male Scarlet Tanager. It stayed in the thicket for about 5 minutes after which I ran home excitedly to tell my husband about my find.

The following morning I heard a robin-like song just outside of my door and looked out to see the *same* bird — yellow patch and all — on a spruce tree about 15 m away. I grabbed binoculars and hurried my house-guests Ruth Hicks and Peter Edwards from Edmonton to observe the bird with me. Several other birders on Indian Point (the peninsula where I live) also observed the tanager that day. The following weekend when we returned it had departed. I believe this to be a sight record for Saskatchewan — being 110 km north of North Battleford in boreal forest. (Weather +19° and clear). — *Muriel Carlson*, 406 Spruce Drive, Saskatoon, Saskatchewan. S7N 2N4

OBSERVATIONS AT PELICAN POINT

Pelican Point is situated on the bend of Last Mountain Lake opposite the mouth of the Arm River.

During the last 14 years we have observed some of the species described by R. D. Symon's book "Hours and the Birds" and we have watched the bucks with velvet antlers stride between the stands of aspen, the flights of pelicans that patrol the lake and the long V's of geese who fly over the center of the lake in the fall.

Over the years we have made a number of observations of mammals which may be worth recording. Recently, we heard the squeals of a shrew and discovered that it was being swallowed by a garter snake. The cries went on for some minutes. The snake was about two feet long and when it had completely swallowed the shrew it slid off to cover.

The last two years there was much chittering under the cottage and on occasions an adult Raccoon would climb onto the cottage roof and peer down at us through the picture window. At dusk the adult Raccoon was seen with three kits going down to raid the neighbour's vegetable patch and their tracks could be seen upon the beach where they had been drinking. We have observed Raccoon tracks for the last 10 years, though it was in May, 1960 we first came upon a Raccoon at Kenosee. The Raccoon under our cottage was observed carrying a kit in its teeth by the scruff of the neck in a similar manner to a domestic cat carrying a kitten.

In the early 1970's I saw an otter on a number of occasions at Pelican Point. A neighbour who was standing on a boat jetty watched it swim towards him and roll over exposing its belly. We presumed that it came from the Arm River which is opposite.

A weasel was found in our cottage shed and subsequently seen in the wood pile and among the boat docks. It was chestnut brown and moved swiftly.

The sandy spit called Pelican Point protrudes out into the lake and deer tracks are occasionally found, although it is almost entirely surrounded by cottages. A neighbour observed deer leaving the point and swimming to the opposite shore of Last Mountain Lake a mile away.

There have been a number of reports of Lynx being seen in the area recently. There have been a number of Cougar reports on the Arm River and area around Craven and Valeport.

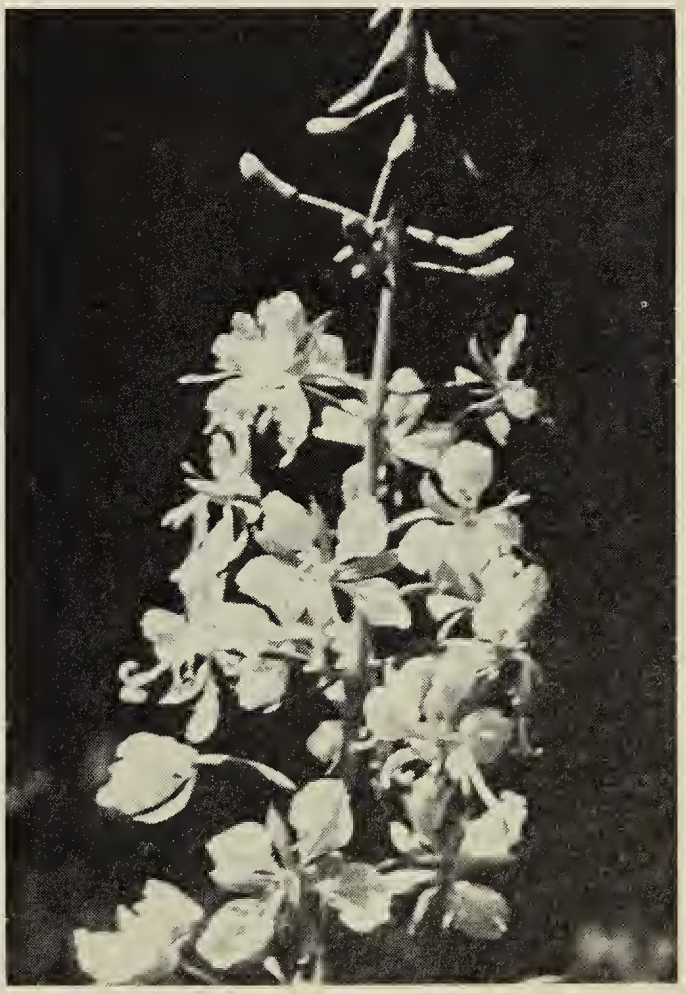
The hill opposite our cottage contained Badger holes. The Badgers were trapped out subsequently, though in the summer of 1979 we saw a Badger near Last Mountain House and another a week later near Snowasis. Both observations were in the early evening. — *Tom White*, 2580 Retallack Street, Regina, Saskatchewan. S4T 2L4.

WHITE-FLOWERED FIREWEED

There is a good-sized patch of white-flowered Fireweed on the Indian Reserve at Lake Ministikwa, Saskatchewan, near the highway and north of the lake. My son John Allan, home address Neilburg, maintains Hwy. 21 and saw it from his grader cab, though it is not visible from a car.

He showed the patch to Tom McRae and Elmer Boehr, Dept. of Tourism and Renewable Resources. Any of these three could show the site to a naturalist, if one is interested.

John took me to see the white flowers August 3 last. Flowering was close to finished. The plants seemed slightly more slender than ordinary Fireweed, and the leaves paler green. I believe they were also smoother. — *Viola Allan*, Box 152, Battleford, Sask. S0M 0E0



White Fireweed. *Kathy Morck*

INFORMATION WANTED ON WASPS NESTS

I am gathering information on the large paper wasps' nests that we find now and then in the fall of the year.

I would appreciate receiving specimens of nests from your readers. There are several species of wasps involved. The nests may be different.

Photographs would also be appreciated.

My plan is to resolve some of the following problems:

1. How far north do wasps make nests in Manitoba and Saskatchewan?
2. Do different species of wasps make recognizably different kinds of nests?
3. Wasps will use dry local material and build it into their nests. Pink toilet paper makes strange looking nests! How frequent is this?
4. Personal experiences with wasps would also be appreciated.
5. What happens to nests in the fall? None are found in the spring out in the wilds.
6. Do wasps recycle dead nests?

— *Walter Krivda*, P.O. Box 864, The Pas, Manitoba. R9A 1K8

KESTREL PURSUES BAT

In July, 1975, near Columbia Lake, British Columbia, at midday, I observed an unusual encounter between an American Kestrel and a bat.

I did not observe the onset of the encounter so can only speculate how it began. When I first caught sight of the pair, the Kestrel was pursuing the bat about thirty feet above the ground. The Kestrel repeatedly dove at the bat; the bat swerved successfully each time. The Kestrel's attacks came from all directions, yet the bat seemed to have chosen an Icarian direction of escape, determinedly climbing upward.

I observed the pursuit for about four minutes, after which the pair had drifted to the east and, vertically, was almost out of sight. — *Virginia Lang Young,* R.R. No. 1, Busby, Alberta. T0G 0H0

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SOCIETY NEWS

SASKATCHEWAN NATURAL HISTORY SOCIETY AWARDS 1981

At the Annual Meeting at Yorkton on 17 October, certificates were presented to two of our members and another was awarded with the recipient not present.

The Conservation Award was presented to Robert W. Nero of Winnipeg. His work with the Great Gray Owl has resulted in the publication of the book *The Great Gray Owl — Phantom of the Northern Forest* (a review of which appeared in the March 1981 issue of the *Blue Jay*). A study of this type takes great determination and perseverance to conduct.

The Larry Morgotch Memorial Award was presented by the Yorkton Society in memoriam of one of their former members whose photographs have appeared in many of the past issues of *Blue Jay*. This award for excellence in photography will be presented to the member showing the best photograph at the members presentations at the Annual Meeting each year. This year it was presented to Stanley Shadick of Saskatoon.

This year's Cliff Shaw Award is to be given to Walter Krivda of The Pas, Manitoba. The past year has seen two articles "The Pearly Eye at The Pas, Manitoba" and "Ghost Moths at The Pas, Manitoba" plus a letter on a Bat Legend from Walter in the *Blue Jay*. Walter Krivda's articles on insects are always interesting and readable. They help to whet the interest of naturalists in the world of insects. Walter has made many contributions to *Blue Jay* in past years, and will probably continue to do so in the future.

Cattails. *W. S. Richards*

SASKATCHEWAN NATURAL HISTORY SOCIETY

Financial Statement — Year Ending September 30, 1981

INCOME

Memberships (including sales of Blue Jay)		16,129.71	
Memberships (extra re: sustaining and patron)		2,115.00	18,244.71
Spec. Pub. No. 1 Guide to Sask. Mammals	2.00		
Spec. Pub. No. 2 Birds of Sask. River	Out of print		
Spec. Pub. No. 3 Birds of Regina	Out of print		
Spec. Pub. No. 4 Blue Jay Index (1942-60)	12.00		
Spec. Pub. No. 5 Birds of Lake Athabasca	4.75		
Spec. Pub. No. 6 Birds of N.E. Sask.	22.38		
Spec. Pub. No. 7 Birds of Moose Mountain	43.00		
Spec. Pub. No. 8 Blue Jay Index (1961-69)	21.00		
Spec. Pub. No. 9 Birds of Rosetown-Biggar	86.40		
Spec. Pub. No. 10 Birds of Gainsborough-Lyleton	75.16		
Spec. Pub. No. 11 Blue Jay Index (1970-78)	49.56		
Spec. Pub. No. 12 Birds of Regina (1980 revision)	495.96		
Spec. Pub. No. 13 Birds of the Qu'Appelle (1857-1979)	965.17		
Publication Hours and the Birds	Out of print		
Publication Birds of the Elbow	3.31	1,780.69	
Donations — General		895.17	
Interest (Savings account, bonds & term deposits)		2,203.17	
Summer meeting 1981 (Waskesiu)		220.56	
Miscellaneous (Premium re: U.S. funds)		128.13	
Sales from Blue Jay Bookshop	22,078.19		
Less: Cost of sales	15,943.11		
Gross profit (27.8% of sales)	6,135.08		
Less: Postage, supplies, etc.	850.65		
Honoraria	2,113.77		
Net profit (14.4% of sales)		3,170.66	8,398.38
			26,643.09

EXPENSE

Printing of Blue Jay (4 issues)	14,471.56	
Printing of Newsletter (3 issues)	2,438.98	
Honoraria (650, 250, 250, 375, 25)	1,550.00	
Postage	994.04	
Office supplies and stationery	320.07	
Office equipment (address plates)	273.23	
Misc. office and admin. expense	508.67	
Annual meeting 1980 (Saskatoon)	139.50	20,696.05
EXCESS OF INCOME OVER EXPENDITURE		5,947.04

Statement of Assets and Liabilities at September 30, 1981

ASSETS

Cash on hand (Bookshop)		40.00
Cash in bank (chequing) — SNHS	1,696.87	
— Bookshop	4,814.75	
Cash in bank (savings) — SNHS	3,246.70	
Cash in bank (term deposits) — SNHS	10,757.88	20,516.20
Canada Savings bonds		5,000.00
Stock on hand (Bookshop)		4,117.68
Accounts receivable (913.07 less prepaid orders 118.27)		794.80
Deposits with Postal Dept.		88.40
		30,557.08

LIABILITIES

Trust fund re: Sanctuaries and Conservation areas			
Balance at September 30, 1980		3,826.75	
Donations for Prairie Lily education campaign	107.38		
Less costs	68.36	39.02	
		3,865.77	
Less costs of Big Gully sanctuary			
Rental lease May, 1980 to May, 1982	2,400.00		
Municipal taxes 1980 and 1981	602.58		
	3,002.58		
Less donations	1,245.00	1,757.58	2,108.19
Donations in support of special publications			2,000.00
Donation in support of publication "The Cougar"			200.00
Donation for colour pages in the "Blue Jay"			500.00
Owing re: Honoraria (Bookshop)			2,068.08
Owing re: Education Tax			3.70

NET WORTH

Balance at September 30, 1980	17,730.07	
Plus surplus for year ending September 30, 1981	5,947.04	23,677.11
		30,557.08

BLUE JAY SUBSCRIPTION AND SNHS RENEWAL FORM

Regular membership (including institutions)	$10.00
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